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1909/10

THE UNIVERSITY BULLETINS

NINTH SERIES: No. 4—PART 3

UNIVERSITY OF PENNSYLVANIA CATALOGUE

FASCICULUS

OF THE

DEPARTMENT OF DENTISTRY

(1908-1909)

Announcements for the 32d Annual Session

1909-1910



Founded 1740

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UNIVERSITY OF ILLINOIS

PHILADELPHIA

PUBLISHED BY THE UNIVERSITY

APRIL, 1909

BI-MONTHLY

Entered at the Philadelphia, Pa., Post-Office as Second-Class Matter

Penn.

SPECIAL NOTICE.

Copies of the University Catalogue (containing detailed information concerning all departments) may be obtained ONLY upon application to the Assistant Secretary of the University, Room 101, College Hall.

To any alumnus of the University, the Catalogue will be sent upon application on receipt of name, department, class and address.

The special announcement of any department of the University will be sent upon application to the appropriate Dean.

UNIVERSITY OF PENNSYLVANIA

FASCICULUS

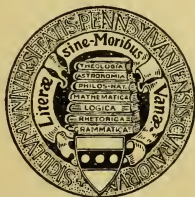
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1909.							1910.													
JULY.							JANUARY.							JULY.						
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DECEMBER.							JUNE.							DECEMBER.						
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19	20	21	22	23	24	25	19	20	21	22	23	24	25	18	19	20	21	22	23	24
26	27	28	29	30	31	.	26	27	28	29	30	.	.	25	26	27	28	29	30	31
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THE UNIVERSITY.

General Information.

LOCATION.

The buildings of the University of Pennsylvania, thirty in number, are situated in Philadelphia, on property covering an area of over fifty-nine acres. The University may be reached from the various railroad stations as follows: From the West Philadelphia station of the Pennsylvania Railroad, on foot west on Woodland avenue, a walk of less than ten minutes; from the Philadelphia and Reading Terminal station, by the electric cars on Market street, or subway, west to Thirty-fourth street, thence on foot south to Woodland avenue; or from the Baltimore and Ohio Railroad station by a walk of one square south to Walnut street, thence by car over the bridge west to Thirty-fourth street.

APPLICATIONS FOR CATALOGUES, ETC.

Applications for copies of the annual University Catalogue (published in December) should be addressed to the Assistant Secretary of the University of Pennsylvania, Philadelphia, Pa.

The University also issues pamphlets relating to the several Departments or to individual courses and often containing information not found in the Catalogue. Inquirers interested in special branches of work only are advised to apply for these pamphlets, not for the Catalogue.

All letters of inquiry regarding the internal regulations and requirements in each separate Department of the University should be addressed to the Dean of that Department (see *Administrative Officers*, following) and *not* to the Assistant Secretary of the University.

ACCOMMODATIONS FOR STUDENTS.

Lodging for students to the number of more than seven hundred and fifty is provided in the present dormitory system, which comprises an extended group of contiguous houses fronting upon three open courts. Plans of the dormitories, prices, and other details may be obtained upon application to the Bursar of the University, College Hall.

Prices for single rooms range from \$60 to \$140 per annum, and for double rooms from \$115 to \$265. About one-half of the rooms are *en suite*, providing for two students a common study, with two bedrooms.

HOUSTON HALL.

Houston Hall is the home of the Houston Club, to membership in which any member of the University is eligible. The fee for active membership in the club is \$3.00 per annum.

Its purposes are to provide for the students a place where all may meet socially on common ground, and to furnish every available facility for healthy recreation and amusement in leisure hours. The equipment of the Hall includes a reading-room, with a large number of periodicals and newspapers; smoking-rooms, billiard and pool tables, tables for chess and checkers, a correspondence room, bowling alleys, shuffle boards, a bath-room, including shower and needle baths, and a swimming pool; athletic trophy rooms; a large auditorium with grand organ; rooms for the University papers and other organizations; a dark room for amateur photographers and many other rooms for general purposes.

The Christian Association, which has its headquarters in Houston Hall, is prepared to furnish prospective students, through its Secretary, full information with regard to the various undergraduate social activities, both secular and religious.

UNIVERSITY OF PENNSYLVANIA.

CHRONOLOGICAL TABLE.

- 1740—"Charity School" founded.
1749—The "Academy" established, with which the Charity School was combined.
1753—Charter granted by Thomas and Richard Penn, incorporating "The Academy and Charitable School."
1755—"Confirmatory Charter" granted by Thomas and Richard Penn, incorporating "The College, Academy and Charitable School."
1765—Medical School founded.

From September, 1777, to June, 1778, owing to the occupation of Philadelphia by British troops, recitations and lectures were suspended.

- 1779—Withdrawal of the chartered rights and privileges of The College by the State Assembly, and incorporation of the "University of the State of Pennsylvania."
1789—Restoration of its chartered rights and privileges to The College.
1790—Law School founded (re-established in 1850).
1791—Union of the University of the State of Pennsylvania with The College, under the title of the UNIVERSITY OF PENNSYLVANIA.
1874—University Hospital established.
1875—Towne Scientific School founded.
1877—Department of Music established.
1878—Dental School founded.
1881—Wharton School of Finance and Commerce founded.
1882—Graduate School founded.
1884—Veterinary School founded.
1885—Veterinary Hospital established.

- 1885—Department of Physical Education established.
- 1889—Department of Archaeology established.
- 1892—Laboratory of Hygiene established.
- 1892—Wistar Institute of Anatomy and Biology established.
- 1892—Saturday Courses for Teachers established.
- 1896—Houston Club organized.
- 1896—Flower Astronomical Observatory opened.
- 1904—Summer School (College) established.
- 1906—College Courses for Teachers established.

ADMINISTRATIVE OFFICERS.

OF THE CORPORATION.

The General Offices are on the third floor of 400 Chestnut Street.

Provost—CHARLES C. HARRISON, LL. D.
General Offices, 400 Chestnut Street.

Vice-Provost—EDGAR F. SMITH, PH. D., SC. D., LL. D.
Office in the JOHN HARRISON Laboratory of Chemistry, Thirty-fourth and Spruce Streets. Office hours, 8 A. M. to 6 P. M.
Saturdays, 8 A. M. to 1 P. M.

Secretary— _____

Assistant Secretary—EDWARD ROBINS.
Office, 101 College Hall. Office hours, 9.30 A. M. to 4.30 P. M.
Saturdays, 9.30 A. M. to 1 P. M.

Treasurer—WILLIAM H. HUTT, JR.
General Offices, 400 Chestnut Street.

Assistant Treasurer—HENRY R. LAWRENCE.
General Offices, 400 Chestnut Street.

Bursar—WILLIAM O. MILLER, A. B.
Office, 102 College Hall. Office hours, 9 A. M. to 1 P. M., daily.
The Bursar's office is open from 8.45 A. M. to 5 P. M. Saturdays, 8.45 A. M. to 1 P. M.

OF THE COLLEGE AND PROFESSIONAL FACULTIES.

Dean of the College Faculty—JOSIAH H. PENNIMAN, PH. D., LL. D.
Office, 103 College Hall, Woodland Avenue. Office hours,
9 A. M. to 12 M., daily.

Dean of the Graduate School Faculty—HERMAN V. AMES, PH. D.
Office, 105 College Hall, Woodland Avenue. Office hours,
9 A. M. to 1 P. M., daily.

Dean of the Law Faculty—WM. DRAPER LEWIS, LL. B., PH. D.
Office in the Law Department Building, Thirty-fourth and Chestnut Streets. Office hours, 12 A. M. to 1 P. M., daily.

Dean of the Medical Faculty—CHARLES H. FRAZIER, A. B., M. D.
The Dean's Office (in the New Medical Laboratories, Hamilton Walk) is open from 9 A. M. to 5 P. M.; Saturdays, 9 A. M. to 1 P. M.

Dean of the Dental Faculty—EDWARD C. KIRK, D. D. S., SC. D.
Office, Dental Hall, Thirty-fourth and Locust Streets. Office hours, 9 A. M. to 1 P. M., daily.

Dean of the Faculty of Veterinary Medicine—LEONARD PEARSON, B. S., V. M. D., M. D.
Office, New Veterinary Building, Thirty-ninth Street and Woodland Avenue. Office hours, 8.30 A. M. to 12 M., daily.

OF THE DEPARTMENT OF PHYSICAL EDUCATION.

Director—R. TAIT MCKENZIE, A. B., M. D.
Office in the Gymnasium, Thirty-third and Spruce Streets.
Office hours, 3 P. M. to 6 P. M., daily, except Saturdays.

Physician—RUFUS B. SCARLETT, M. D., 4005 Chestnut St.
Office hours daily, from 8 to 9 A. M., 12 to 1 P. M., and from 7 to 8 P. M. Sundays until 10 A. M. Telephone connection.
Other hours by appointment.

Ophthalmologist—WILLIAM CAMPBELL POSEY, A. B., M. D., 2049 Chestnut Street.
Office hours, from 8.30 A. M. to 1 P. M., daily. Telephone connection.

OF OTHER DEPARTMENTS.

Librarian of the University—MORRIS JASTROW, JR., PH. D.
Office in the Library, Thirty-fourth Street below Walnut. Office hours, 10 A. M. to 1 P. M., daily.

The Library is open daily during term-time, except Sundays and holidays, from 8.30 A. M. to 10 P. M. During the summer vacation, from 9 A. M. to 5 P. M.; during the session of the Summer School, from 8.30 A. M. to 5 P. M.

Assistant Librarian of the University—KATHARINE STOCKTON LEIPER.

Office in the Library. Office hours, 2 P. M. to 5 P. M., daily.

Librarian of the Biddle Law Library—MRS. MARGARET C. KLINGEL-SMITH, LL. B.

Office in the Law Department Building, Thirty-fourth and Chestnut Streets. Office hours, 10 A. M. to 5 P. M., daily.

Manager of the Bureau of Publicity—GEORGE E. NITZSCHE, LL. B.

Office in Houston Hall (third floor), Spruce Street above Thirty-fourth. Office hours, 9 A. M. to 6 P. M., daily.

Superintendent of the University Hospital—MARION E. SMITH.

The Hospital is on Spruce Street above Thirty-fourth. Communications concerning the business of the Hospital and the admission of patients should be addressed to the Superintendent.

Director of the William Pepper Clinical Laboratory—ALFRED STENGEL, M. D.

Office in the Laboratory. Office hours, 2 P. M. to 3 P. M., daily.
The Laboratory is on Spruce Street below Thirty-sixth, adjoining the Hospital.

Director of the Wistar Institute—MILTON J. GREENMAN, PH. B., M. D.

Office in the Institute, Thirty-sixth Street and Woodland Avenue. Office hours, from 9 A. M. to 12 M., daily, except Saturdays.

Director of the John Harrison Laboratory of Chemistry—EDGAR F. SMITH, PH. D., Sc. D., LL. D.

(For office and office hours, see under *Vice-Provost*.)

Director of the Laboratory of Hygiene—ALEXANDER C. ABBOTT, M. D., Sc. D.

Office in the Laboratory, Thirty-fourth Street below Walnut.

First Assistant in the Laboratory of Hygiene—DAVID HENDRICKS BERGEY, A. M., M. D.

Office in the Laboratory. Office hours, 9 A. M. to 12 M., and 2 P. M. to 5 P. M., daily.

Director of the Randal Morgan Laboratory of Physics—ARTHUR W. GOODSPEED, PH. D.

Office in the Laboratory, Thirty-fourth Street below Walnut.

Director of the Light and Heat Station—HENRY W. SPANGLER, M. S.,
Sc. D.

Office in the Central Light and Heat Station, Thirty-fourth
and Spruce Streets, after 8.30 A. M.

Director of the Botanic Garden—JOHN M. MACFARLANE, D. Sc.

The Botanic Garden is adjacent to Biological Hall, on Hamilton Walk, and is open daily from 7 A. M. to sunset. The greenhouses are open from 8 A. M. to 5 P. M.

Director of the Flower Astronomical Observatory—CHARLES L. DOOLITTLE, C. E., Sc. D.

The Observatory is situated on the West Chester Pike, one and three-fourths miles beyond the city limits. (Take elevated cars on Market Street to Sixty-ninth Street, then change to Ardmore or Newtown Square car.) The residence of the Director is adjacent to the Observatory.

Director of the Wharton School of Finance and Commerce—JAMES T. YOUNG, Ph. D.

Office, Logan Hall, Thirty-sixth Street below Woodland Avenue. Office hours, 11 A. M. to 1 P. M., daily.

Director of the Summer School—ALBERT DUNCAN YOCUM, Ph. D.

Office, College Hall. Office hours, 2.30 P. M. to 4.30 P. M., daily, except Saturday.

UNIVERSITY MUSEUM.

The Museum contains the archaeological and ethnological collections of the University, and is situated on Spruce Street below Thirty-fourth, opposite Franklin Field. The collections are open to visitors daily, during the scholastic year, New Year's Day, Good Friday and Christmas Day excepted, from 10 A. M. to 5 P. M.; on Sundays, from 2 P. M. to 6 P. M.

GENERAL SUMMARIES.

OFFICERS OF INSTRUCTION.

The College	220	
Graduate School	80	
Department of Law	26	
" " Medicine	157	
" " Dentistry	52	
" " Veterinary Medicine	25	
Emeritus Professors	3	
	563	
Duplications	109	
Total	454	

STUDENTS.

The College	School of Arts	412	}	2989
	Towne Scientific School	987		
	Wharton School	472		
	Courses for Teachers	384		
	Evening School of Accounts and Finance	253		
	Summer School (1908)	481		
Graduate School				353
Department of Law				327
" " Medicine				559
" " Dentistry				385
" " Veterinary Medicine				150
				4763
Duplications				193
Total				4570

GEOGRAPHICAL SUMMARY OF STUDENTS.

Alabama	15	Bermuda	1	Canada	9
Argentine Republic	7	Bolivia	1	Central America	10
Arkansas	5	Brazil	16	Chile	1
Asia Minor	1	British Columbia	2	China	31
Australia	21	Brit. West Indies	5	Colombia	5
Austria	2	California	12	Colorado	8

Connecticut.....45	Louisiana.....4	Peru.....2
Costa Rica.....5	Maine.....20	Philippine Islands. 1
Cuba.....15	Maryland.....68	Poland.....3
Delaware.....67	Massachusetts...67	Porto Rico.....12
Denmark.....1	Mexico.....9	Rhode Island....9
Dist. of Columbia.25	Michigan.....11	Roumania.....2
Egypt.....2	Minnesota.....14	Russia.....6
Ecuador.....5	Mississippi.....3	South Carolina...7
England.....7	Missouri.....15	Sweden.....1
Florida.....9	Nebraska.....2	Switzerland.....1
France.....6	New Hampshire..10	Tennessee.....13
Georgia.....15	New Jersey.....333	Texas.....12
Germany.....16	New York.....213	Turkey.....1
Holland.....7	New Zealand....15	Utah.....13
Honduras.....1	Nevada.....2	Vermont.....5
Idaho.....4	Newfoundland...2	Virginia.....21
Illinois.....20	North Carolina...16	Washington.....12
Indiana.....30	North Dakota....2	West Virginia....8
Iowa.....21	Nova Scotia.....7	Wisconsin.....14
Ireland.....1	Ohio.....60	—
Italy.....3	Oregon.....2	Total.....4763
Japan.....9	Panama.....2	Duplications...193
Kansas.....6	Paraguay.....3	—
Kentucky.....8	Pennsylvania..3260	Total.....4570

DEPARTMENT OF DENTISTRY.

FACULTY.

CHARLES C. HARRISON, LL. D., PROVOST.

EDGAR F. SMITH, PH. D., SC. D., LL. D., VICE-PROVOST.

EDWIN T. DARBY, D. D. S., M. D., Professor of Operative Dentistry and Dental Histology.

JAMES TRUMAN, D. D. S., LL. D., Professor of Dental Pathology, Therapeutics and Materia Medica.

EDWARD T. REICHERT, M. D., Professor of Physiology.

GEORGE A. PIERSOL, M. D., SC. D., Professor of Anatomy.

JOHN MARSHALL, M. D., NAT. SC. D., LL. D., Professor of Chemistry and Toxicology.

EDWARD C. KIRK, D. D. S., SC. D., Professor of Clinical Dentistry, and DEAN OF THE FACULTY.

*ALEXANDER C. ABBOTT, M. D., SC. D., PEPPER Professor of Bacteriology.

MATTHEW H. CRYER, D. D. S., M. D., Professor of Oral Surgery.

CHARLES R. TURNER, D. D. S., M. D., Professor of Mechanical Dentistry and Metallurgy.

GEORGE G. MILLIKEN, D. D. S., M. D., Assistant Professor of Operative Technics.

DAVID H. BERGEY, A. M., M. D., Assistant Professor of Bacteriology.

R. HAMILL D. SWING, D. D. S., Assistant Professor of Oral Surgery and Anesthesia.

A. DEWITT GRITMAN, D. D. S., Assistant Professor of Mechanical Dentistry.

FREDERIC A. PEESO, D. D. S., Assistant Professor of Crown-and-Bridge Work.

* Absent on Public Business.

LECTURERS.

- ROBERT HUEY, D. D. S., Lecturer on Operative Dentistry.
JOHN D. THOMAS D. D. S., Lecturer on Nitrous Oxide.
MEYER L. RHEIN, D. D. S., M. D., Lecturer on Dental Pathology.
SAFFORD G. PERRY, D. D. S., Lecturer on Operative Dentistry.
WILLIAM A. CAPON, D. D. S., Lecturer and Special Instructor in Porcelain Work.
ALFRED P. LEE, D. D. S., Lecturer on Materia Medica.

DEMONSTRATORS.

- WILLIAM DIEHL, D. D. S., Demonstrator of Operative Dentistry.
GEORGE H. CHAMBERS, M. D., Assistant Demonstrator of Normal Histology.
FREDERICK W. AMEND, JR., D. D. S., Demonstrator of Mechanical Dentistry.
J. EDWARD DUNWOODY, D. D. S., Demonstrator of Crown-and-Bridge Work.
MILTON N. KEIM, JR., D. D. S., Demonstrator of Mechanical Dentistry.
JAMES G. LANE, D. D. S., Demonstrator of Mechanical Dentistry.
DANIEL W. FETTEROLF, M. D., Demonstrator of Chemistry.
ROBERT J. SEYMOUR, D. D. S., Demonstrator of Mechanical Dentistry.
JAMES A. DOWDEN, D. D. S., Demonstrator of Mechanical Dentistry.
WILSON ZERFING, D. D. S., Demonstrator of Operative Dentistry.
AUGUSTUS O. KOENIG, B. S., M. D., Demonstrator of Dental Metallurgy.
G. JANVIER PAYNTER, D. D. S., Demonstrator of Tooth Modeling.
FREDERICK W. ALLEN, D. D. S., Demonstrator of Operative Technics.
JOHN A. McCLAIN, D. D. S., Demonstrator of Operative Dentistry.
J. GARRETT HICKEY, D. D. S., Demonstrator of Physiology.

- S. MERRILL WEEKS, D. D. S., Demonstrator of Orthodontia.
ALBERT W. JARMAN, D. D. S., Demonstrator of Mechanical Dentistry.
WALTER W. McKAY, D. D. S., Demonstrator of Porcelain Inlay Work.
JEHU T. GORE, D. D. S., Demonstrator of Operative Dentistry.
WALTER S. CORNELL, M. D., Demonstrator of Osteology.
CHARLES H. JACO, D. D. S., Demonstrator of Operative Dentistry.
ALFRED P. LEE, D. D. S., Demonstrator of Operative Dentistry.
GEORGE M. DORRANCE, M. D., Demonstrator of Applied Anatomy.
MICHAEL T. BARRETT, D. D. S., Demonstrator of Mechanical Dentistry.
WILLIAM H. F. ADDISON, M. B., Demonstrator of Normal Histology.
ELON L. KANAGA, D. D. S., Demonstrator of Crown-and-Bridge Work.
HAROLD B. WOOD, M. D., Assistant Demonstrator of Normal Histology.
DOUGLAS O. HENSON, D. D. S., Demonstrator of Operative Dentistry.
EDWARD KENNEDY, D. D. S., Demonstrator of Mechanical Dentistry.
PHILIP KURTZ, D. D. S., Demonstrator of Mechanical Dentistry.
SIDNEY A. SANDS, D. D. S., Demonstrator of Operative Dentistry.
LESLIE M. CRAVER, D. D. S., Demonstrator of Operative Dentistry.
JOHN W. DISMANT, D. D. S., Demonstrator of Mechanical Dentistry.

JOHN A. REIMOLD, REGISTRAR.

CLINICAL INSTRUCTORS.

Dr. EDWARD I. KEEFFER, Dr. JOHN R. YORKS,
Dr. DANIEL N. McQUILLEN.

ORGANIZATION OF THE DENTAL SCHOOL.

The Department of Dentistry of the University of Pennsylvania was organized in the early part of 1878. It was the third school created as the dental department of a university, having been preceded in this respect by the Harvard School of Dentistry (organized in 1867), and the Dental Department of the University of Michigan (organized in 1875).

The motive leading to the creation of dental schools as regular departments of the university educational system was the rapid growth of dentistry as a profession. This was shown by the improvement in the educational equipment of its practitioners, and by the tendency to broaden the courses of instruction furnished by dental schools to meet the continual necessity for more thorough training.

Realizing that but two conceptions of the status of dentistry were possible, viz.: that it was either a branch of medicine, or else a separate profession; and believing that its close relationship with medicine called for the future development of dentistry in conformity therewith, the Trustees took action resulting in the creation of the Department of Dentistry of the University of Pennsylvania. The plan of instruction was so arranged that the branches common to both medicine and dentistry were taught concurrently by teachers who held corresponding chairs in both medical and dental faculties; while the strictly dental teaching was provided for by the creation of chairs whose incumbents were specially qualified for giving instruction in their respective branches. This arrangement is in strict accordance with the university idea, by which the teaching of allied branches is centralized in different departments. It does not imply that the Department of Dentistry is a branch of the Department of Medicine, for, as a matter of fact, both are distinct Departments of the University.

It is worthy of note that the Department of Dentistry is actually, as well as in name, a Department of the University. Its position as a recognized member of the University family confers upon its students certain advantages pertaining to that relationship. Its students enjoy in common with all other students of the University the privileges and social relationships pertaining to the student life of the whole body. Prominent among these features is membership in the Houston Club, an organization governed by students and domiciled in a club house which in its fittings and appointments is second to no other club house in Philadelphia. Its students have

also the use of the Dormitories, and are admitted to all of the athletic features of the University; while, with reasonable restrictions, the opportunity is afforded them to pursue such allied lines of study as in the judgment of the authorities may tend to add strength and fullness to the dental educational equipment.

The practical advantages that accrue to the dental student by such a broad policy are at once manifest. Its effects upon the status of the dental practitioner must be recognized when it is considered that during the student life, his association with the students of the other Departments of the University is upon a basis of equality in all that concerns the student life of the institution. The influence of this feature in bringing about a close relationship between dental and medical students develops a mutual respect and recognition, which in their career as practitioners is of the utmost importance.

EQUIPMENT.

The arrangement of the interior of the Dental Hall is such that facilities are provided for the thorough education of the student in every important detail of his professional work. The clinical operating-room occupies one entire floor of the main building, giving a floor space 180 by 50 feet, furnished with one hundred latest pattern Wilkerson operating chairs, each provided with a fountain cuspidor, with running water attached, and attachment for the Fisk saliva ejector. Each chair is provided with a bracket arm, and table for holding instruments, besides a separate table for the instrument case. Electric service is provided for each chair. A complete locker system in connection with the operative clinic furnishes means for the storage of instruments when not in use. In the fitting up of the operating-room, the aim has been to make the appointments as nearly as possible like those of a first-class private office, so that from the beginning of his course the student is familiarized with the conditions he will meet in actual practice.

One large general laboratory for prosthetic work is provided, and separate departments for crown-and-bridge work, orthodontia technics, prosthetic technics, operative technics, porcelain work including inlays, crown-and-bridge and continuous gum work, metallurgical work, cast metal fillings, vulcanizing and modeling; also special clinic-rooms and laboratories. Ample arrangements are provided for the convenience and comfort of the students in the care of instruments, tools, etc. There are also hat and coat rooms, lavatories, etc., a

bicycle-room, laundry, store-rooms, and living apartments of the janitor; and an assembly-room for the exclusive use and recreation of the students when not on duty. The laboratories are fitted with the most approved appliances for work and instruction in the several departments of dentistry. Compressed air is supplied to the laboratory tables for melting and soldering operations, as well as for metallurgical work. The laboratory lathes are driven by electric motor, and no feature which could add to the facilities for thorough and accurate work has been omitted.

The lecture amphitheatre will comfortably seat 550. It joins the main building by a corridor, and in relation with it are arranged the dental museum and library.

As the laboratory, or manual-training, method forms a prominent and necessary adjunct to didactic teaching, facilities for carrying out the technic system of instruction are provided in connection with each subject to which the system is applicable.

ADMISSION.

The courses in Dentistry are not open to women.

Special attention is called to the rule requiring all applicants for matriculation to be present and enter their names *not later than October 10th following the official date of opening.*

Candidates for admission will not be permitted to matriculate for any session other than that immediately succeeding the date of matriculation. No candidate will be allowed to matriculate for more than one session at a time.

PRELIMINARY EDUCATIONAL REQUIREMENTS.

For the Session 1909-10 the minimum educational standard for unconditioned matriculation is 60 counts based upon the subjects specified on the next page of this catalogue or upon the equivalent of these counts in High School subjects attested by certificates or diplomas issued by approved High Schools or literary colleges. Applicants may be admitted upon a minimum of 45 counts upon the condition that 15 additional counts shall be made up before entrance upon the second year of the course.

An applicant whose credentials do not fully meet the requirements outlined above, or who does not pass the entrance examinations with a percentage of 70 in every subject, may be admitted on condition that he make up the required work in any branch or branches (not exceeding 15 counts) as specified on the next page.

ENTRANCE SUBJECTS.

Counts.		Counts.	
4	First Year English	2	Trigonometry
3	Grammar, Rhetoric, and English Reading	5	Physics
5	First Year Latin	5	Chemistry
5	Latin Grammar, and Cæsar (four books)	5	American History and Civics
5	First year German, French or Spanish	2	History of Greece and Rome
2	Advanced Arithmetic (including Metric System and Mensuration)	3	European History
5	Algebra through Quadratics	3	English History
2	Intermediate Algebra	2½	Elementary Botany
5	Plane Geometry	2½	Elementary Zoölogy
2	Solid Geometry	3	Advanced Drawing
		2	Shop work (in Manual Training School); second year (2)

The count values above specified are based upon work throughout a standard academic year consisting of thirty-eight weeks. Additional work will receive additional count credit.

In lieu of a diploma or certificate, covering the above specified requirement, the applicant will be required to pass a matriculate examination, which shall be the equivalent of that forming the basis of the entrance standard of preliminary education.

To assist the candidate in preparing for the entrance examination, the following studies are recommended, each representing one year's high school work:

LANGUAGE (9 counts).

English (4 counts).

(a) *Grammar*.—Parts of speech and their properties; declension; comparison; conjugation; general rules of syntax; analysis; parsing; meaning of words; paraphrasing; elements of rhetoric.

(b) *Composition*.—Special attention must be paid to spelling, punctuation, capitalization, matter and structure; paraphrasing; unity and coherence.

Text Books.—Reed & Kellogg, *Higher Lessons in English*; Woodley, *Foundation Lessons in English Grammar*.

NOTE.—The entrance examination for the session of 1909-1910 will be held in Roberts Vaux School-building, Wood Street below Twelfth, on Saturday, September 18, 1909, at 9 A. M.

(c) *English Reading*:—College entrance requirements, viz.: A general knowledge of the following works:

Shakespeare, *The Merchant of Venice* and *Julius Cæsar*; *The Sir Roger de Coverley Papers* in *The Spectator*; Goldsmith, *The Vicar of Wakefield*; Scott, *Ivanhoe*; Coleridge, *The Rime of the Ancient Mariner*; Carlyle, *Essay on Burns*; Tennyson, *The Princess*; Lowell, *The Vision of Sir Launfal*; George Eliot, *Silas Marner*.

A special knowledge of the subject-matter, form and structure of the following works: Shakespeare, *Macbeth*; Milton, *Lycidas*, *Comus*, *L'Allegro* and *Il Penseroso*; Burke, *Speech on Conciliation with America*; Macaulay, *Essays on Milton and Addison*.

Latin (5 counts). First year high school course.

(a) *Grammar*:—Accentuation; rules for gender; declension of regular nouns, pronouns and adjectives; comparison of adjectives and adverbs; conjugation of regular verbs; general rules of syntax.

(b) Vocabulary exercises and translations of easy sentences and selections into English and into Latin.

Text Books:—Bennett, *Foundations of Latin*; Collar & Daniell, *First Year Latin*.

Note:—In lieu of Latin, the applicant may elect an equivalent in one year's course in German, French or Spanish.

Text Books:—Collar, *First Year German*; François, *Beginners' French*; DeTorne, *Combined Spanish Method*.

MATHEMATICS (12 counts).

Arithmetic (2 counts). The fundamental operations; fractions; decimals; compound numbers; interest; ratio and proportion; square and cube root; metric system; elementary mensuration; series.

Text Books:—Brooks, *Normal Standard Arithmetic*; Gideon, *Model Complete Arithmetic*.

Algebra (5 counts). The fundamental operations; factoring; fractions; equations of one or two unknowns; ratio and proportion; the simpler forms of radicals and of quadratics; binomial theorem.

Text Books:—Wentworth, *Short Course in Algebra*; Brooks, *Elements of Algebra*.

Plane Geometry (5 counts). Usual definitions, theorems, constructions and demonstrations; general principles of plane rectilineal figures; measurement of angles; similar polygons; areas; regular polygons; the circle; simple original problems.

Text Books.—Phillips & Fisher, *Plane Geometry*; Brooks, *Plane Geometry*.

HISTORY (9 counts).

(a) *History and Constitution of the United States* (4 counts). The most important discoveries and settlements; the struggles of European nations for mastery in America; the Revolution; the leading events under the successive administrations; the War of 1812; the Mexican War; the Civil War—the causes, most important campaigns, result; the general development of our nation in extent, population, industries and power.

The causes leading to the adoption of the Constitution; the most important features; the general principles of our government; the legislative department, the executive, the judicial, with their general duties and powers.

Text Books.—McLaughlin, *History of the United States*; Eggleson, *School History of the United States and its People*.

(b) *History of Greece and Rome* (2 counts). The most important political events; the prominent features of civilization; the most striking manners and customs of the people.

Text Books.—West, *Ancient History*; Myers, *Ancient History*.

(c) *History of England* (3 counts). Britain; Saxon England; Norman England; England under Plantagenets and Tudors; Puritan revolution; constitutional monarchy; British Empire.

The most important political events; development in civil and religious liberty and in civilization and literature; increase in extent of territory and in world influence.

Text Books.—Montgomery, *Leading Facts of English History*; Walker, *Essentials of English History*; Cheney, *Short History of England*.

SCIENCE (5 counts).

Elementary Physics (5 counts). Matter and its general properties; mechanical powers; pneumatics, hydrostatics; heat, sound, light; magnetism and electricity; simple experiments.

Text Books:—Gage, *Elements of Physics*; Carhart & Chute, *High School Physics*.

Note:—In lieu of Physics, the applicant may elect an equivalent in one year's course in Chemistry.

Text Books:—Shepard, *Elements of Chemistry*; Remsen, *Elementary Course in Chemistry*.

Second Year English (3 counts).

(a) *Grammar* (continued):—Composition and rhetoric.

Text Books:—Hill, *Elements of Rhetoric and Composition*; Thorndike, *Elements of Rhetoric and Composition*.

(b) *Literature*. DeCoverley papers, *Pilgrim's Progress*, *Franklin's Autobiography*, *As You Like It*, *Twelfth Night*, *Merchant of Venice*, *Silas Marner*, *Vicar of Wakefield*, *House of Seven Gables*, *Deserted Village*, *Rape of the Lock*, *Palgrave's Golden Treasury* (Books II and III).

Second Year Latin (5 counts).

Grammar. Easy composition, Cæsar (4 books).

Text Books:—Bennett, *Latin Grammar*; Mitchell, *Essentials of Latin*; Cæsar, *Commentaries*, any standard edition.

Note:—In lieu of Latin the applicant may elect an equivalent course in German, French or Spanish.

Intermediate Algebra (2 counts). Imaginary quantities, evolution, quadratics, progressions.

Text Books:—Wells, *Essentials of Algebra*; Milne, *High School Algebra*.

Solid Geometry (2 counts). Usual theorems, constructions and demonstrations; properties and measurement of prisms, pyramids, cylinders and cones; surfaces and volumes of solids; the sphere and the spherical triangle; simple original problems.

Text Books:—Brooks, *Solid Geometry*; Wells, *Solid Geometry*.

Plane Trigonometry (2 counts). Definitions and relations of the six trigonometric functions as ratios; circular measurements of

angles; proof of principal formulæ; simpler uses and theories of logarithms; applications.

Text Books:—Brooks, *Plane Trigonometry*; Wells, *Plane Trigonometry*.

European History (3 counts). Carlovingian empire, feudalism (10th century); the Papacy and German-Roman empire (to 13th century); formation of France to 1328; the East and the crusades (1096-1270); Christian and feudal civilization; the Renaissance (14th and 15th centuries); Protestant revolution and wars of religion (1527-1648); France and age of Louis XIV; Russia and age of Frederick the Great; French Revolution; age of Napoleon (1795-1815); growth of nationality, democracy and liberty in the 19th century.

Text Books:—Myer, *General History*; Fisher, *General History*.

Elementary Botany (3 counts). Seeds and seedlings; roots, stems, buds, flowers, fruits; mosses and ferns; algae and yeast; general function and structure of parts; life history; experiments.

Text Books:—Andrews, *Botany all the Year 'Round* (without flora); Bergen, *Elementary Botany*.

Note:—An equivalent course in elementary zoölogy will be accepted in lieu of botany.

Advanced Drawing (3 counts). Freehand and Mechanical.

Manual Training School Shopwork (2 counts).

Other text books than those named may be used, provided they cover the subjects to the extent indicated.

Other subjects than those named in the lists preceding will have full credit-counts given to them, provided they represent a year's work in the course of a high school or equivalent school or institution.

Registration cards and permits for the entrance examination must be first obtained from the office of the Dean of the Department of Dentistry in Dental Hall, Thirty-third and Locust streets, Philadelphia.

Regents' Academic Counts are required from students entering from New York State.

ADMISSION TO ADVANCED STANDING.*

Students possessing the requisite preliminary education and who have attended one full term in a dental school recognized by this University, will be admitted to the second year, subject to the rules governing admission to advanced standing.

Graduates of a recognized medical school will be admitted to the Second-year Dental Class without examination.

Applicants for advanced standing, who have not had instruction in Practical Histology and Practical Chemistry equivalent to that required by this department, will be permitted to make up such deficiency by taking special courses, for which an extra fee of fifteen dollars is charged for each branch. Classes for special courses in these branches are organized during the second week in September for the benefit of those desiring to take the laboratory work before the work of the regular session.

Students who have credit for the completed work of two or more terms in a recognized dental school, and who possess the requisite preliminary educational qualifications, are eligible for admission to the third year, subject to the rules governing admission to advanced standing.

Graduates of foreign dental schools are required to conform to the rules governing preliminary educational qualifications as well as the rules governing advanced standing, and their credentials must have been satisfactorily authenticated before they can be accepted.

SCHOLARSHIPS.

I. UNIVERSITY SCHOLARSHIPS.—The Trustees have established two University Scholarships in Dentistry, the award of which is based upon the result of a competitive examination equivalent to that demanded for admission to the technical courses in the College. They are not awarded for less than the entire course.

Examinations for these scholarships are held on the same day with those fixed for entrance to the College (Thursday, September 16, 1909), and are open to all applicants otherwise eligible for admission to the Department of Dentistry. Circulars setting forth in detail the plan of the scholarship examination may be had upon application to the Dean of the Department of Dentistry.

* All applicants for advanced standing must pass the examinations of the years they desire to omit, or furnish proof that they have passed *equivalent* examinations in some recognized dental or medical school.

A registration fee of five dollars is required of all candidates for scholarship and entrance examination, and is not returnable in case of failure to pass.

2. PUBLIC SCHOOL PRIZE SCHOLARSHIPS.—Under an agreement with the city of Philadelphia, fifty free scholarships exist in the University for the benefit of graduates of the public schools. The candidates for these scholarships are examined by the Board of Public Education, and award is made to those who reach the highest grade, as vacancies occur from year to year.

STATUS OF STUDENTS.

A regular student is one who is regularly admitted to the Department, and who is a candidate for the degree of D. D. S.

A special student is one who is regularly admitted to the Department, but who, not being a candidate for the degree, does not take the regular course. The admission of special students is at the discretion of the Dean.

SPECIAL COURSES.

The Department offers special courses of instruction in any or all of the branches of the curriculum. Such courses are elective and do not lead to the dental degree. The fees for the special courses are \$50.00, \$100.00 or \$150.00, depending upon whether the student remains under instruction for three months, six months or the entire session respectively. These course fees are in all cases additional to the regular matriculation fee of \$5.00.

HOUSTON CLUB AND GYMNASIUM.

A uniform charge of \$10.00 a year is made upon all students, to include membership in Houston Club with all of the usual club privileges, and the use of the gymnasium and its facilities, including locker and the use of Franklin Field, excepting only at such times as the Field may be in use by athletic teams.

PHYSICAL EDUCATION.

In the Department of Dentistry two hours a week of graded physical culture is an obligatory part of the curriculum for all students of the first year, excepting those who have previously had an equivalent course of physical training elsewhere and those who for reasons of physical disability may be excused by the Director.

ARRANGEMENT OF SESSION.

The academic year consists of one session beginning on the last Friday in September, and ending at Commencement, on the third Wednesday in June. The course of instruction is graded.

Laboratory instruction, not only in all of the practical dental branches, but also in Practical Chemistry, Metallurgy, Histology, Bacteriology, Physiology and Osteology, forms a prominent feature of the course.

The session of 1909-10 will begin on Friday, September 24, 1909, and will end on Wednesday, June 15, 1910.

MID-TERM EXAMINATIONS.

The arrangement of subjects constituting the curriculum of the first, second, and third years as specified here and on pp. 30, *et seq.*, is provisional only, and subject to change before the opening of the following session.

In the first-year course final examinations are held about February 1 in Chemistry, Histology and Elementary Anatomy.

In the second-year course, at the same date, final examinations are held in Elementary Physiology, one half of Applied Anatomy and Bacteriology.

In the third-year course final examinations are held at mid-term in Metallurgy, Crown-and-Bridge Work, Dental Ceramics, Anesthesia, Orthodontia, and one half of Oral Surgery.

RULES GOVERNING MID-TERM EXAMINATIONS.

1. NON-PRESENTATION AND FAILURES.

A student who has not undergone examination, or who has failed to attain a mark of 50 in any examination, may be re-examined:

(a) At the first re-examination about March 1; or, failing then

(b) At the second re-examination about one week prior to the final examinations of the academic year in May.

2. FAILURE TO MAKE A GENERAL AVERAGE OF 60.

A student having passed all the examinations, but failing to attain a general average of 60, may avail himself of the privileges of the re-examinations at the times designated in paragraph 1, in all of the subjects in which a mark of less than 60 was attained.

3. ELIGIBILITY FOR FINAL EXAMINATIONS IN MAY.

All the mid-year examinations must be passed before the candidate becomes eligible for the final examinations for the academic year, held in May.

4. REPETITION OF THE STUDIES OF THE YEAR.

The general rules governing the repetition of the studies of any year shall apply to those students who failed to pass or to attain the required general average, or who were ineligible to appear at the final examinations of the academic year, held in May.

RULES GOVERNING TERM EXAMINATIONS.

FIRST AND SECOND YEAR STUDENTS.

1. The examination marks of this Department are based on a scale of 100. Each student must obtain a general average of 60 to pass the examinations of the year. 50 on a single branch will entitle him to average; less than 50 constitutes a failure in that branch.

2. Students who have failed to pass in any or all the branches are given an opportunity for a second examination, before the opening of the next regular session, on the stated day in September designated for re-examinations in the official calendar in this Catalogue; but if the student fail to appear, or if his general average be less than 60, he shall repeat the studies of the year except those in which he received a grade of not less than 70.

3. A student may be permitted to matriculate in the succeeding year, if he has successfully passed all but one branch, on condition that the one in which he has been found deficient must be passed on or about November 1 of the year in which he has been matriculated. Failing at the November examination to pass the branch in which he is conditioned, the student will be required to repeat the work of the year as provided in Rule 2. This rule applies to laboratory and clinical requirements as well as to didactic work.

4. No student will be eligible for examination if any portion of his fees remains unpaid.

EXAMINATION FOR GRADUATION.

1. The examination marks shall be upon a scale of 100.

2. Each candidate must attain at least 50 in any single branch, and have a general average of 60, before he can be recommended for graduation.

3. Candidates who attain a general average of at least 90 shall be considered to have gained Honors of the first class, and will receive Honorable Mention.

4. The graduation average shall be based on the examination marks of the whole curriculum.

5. Examinations are held immediately after the completion of the lecture courses.

No student can be examined before that time except by consent of the Faculty.

GRADUATION.

At the close of the course, a student who has fulfilled all requirements satisfactorily receives the degree of *Doctor of Dental Surgery* (D. D. S.), under the following regulations:

I. He must be of legal age and of good moral character.

II. He must have passed a satisfactory examination in all the branches of the curriculum; must have attended the practical instruction and performed the required practical work in all departments; and his last year of instruction must have been at the Department of Dentistry of this University.

III. He must have dissected at least two parts; must have performed thoroughly, and to the satisfaction of the Professor of Operative Dentistry, all the usual dental operations; must have undertaken at least one artificial case comprising a full upper and lower denture, and brought it completed, with the patient, to the Assistant Professor of Mechanical Dentistry, before the fifteenth day of May; and must have prepared for presentation to the Professor of Mechanical Dentistry, before the fifteenth of May, a specimen case to be deposited in the University collection. The required operations, as well as the work on the artificial case, must have been performed in Dental Hall.

IV. After receiving notice of having successfully passed the final examination, he must enter his name on the Register of Candidates for the Degree.

V. He must be present at Commencement, unless excused by the Dean of the Faculty.

TEXT-BOOKS AND WORKS OF REFERENCE.*

Text-Books.

Works of Reference.

Operative Dentistry:

Kirk, the American Text-
Book of Operative Dentis-
try. (Third edition.)

Johnson, Principles and Practice
of Filling Teeth.
Kingsley, Oral Deformities.

* In all cases the latest editions should be obtained.

Text-Books.

Works of Reference.

Mechanical Dentistry and Metallurgy:

Turner, The American Text-Book of Prosthetic Dentistry.

Essig-Koenig, Dental Metallurgy.

Dental Pathology and Therapeutics:

Burchard-Inglis, Dental Pathology, Therapeutics and Pharmacology. (Second edition.)

Stengel, Text-Book of Pathology.

Coplin, Manual of Pathology.

Materia Medica:

Long, Dental Materia Medica.

H. C. Wood, Therapeutics.

Wood & Bache, United States Dispensatory.

Butler, Text-Book of Materia Medica, Therapeutics and Pharmacology.

Orthodontia:

Angle, Treatment of Malocclusion of the Teeth and Fractures of the Maxillæ.

Sollmann, A Text-Book of Pharmacy.

Chemistry:

Richter, Inorganic Chemistry. Medicus, Qualitative Analysis. (Seventh edition.)

Mitchell, Dental Chemistry.

Alex. Smith, General Inorganic Chemistry.

Histology:

Piersol, Normal Histology.

Anatomy:

Piersol, Human Anatomy.

Black, Dental Anatomy.

Cunningham, Human Anatomy.

Tomes, Dental Anatomy.

Dissection Manual:

Cunningham, Practical Anatomy.

Text-Books.

Works of Reference.

Applied Anatomy:

Cryer, Studies of the Internal
Anatomy of the Face.

Physiology:

Stewart, Manual of Physi- Howells, Physiology.
ology.

Oral Surgery:

Bergmann, A System of Prac- Marshall, Injuries and Sur-
tical Surgery. Vol. I. gical Diseases of the Face,
Mouth and Jaws.

Bacteriology:

Abbott, Principles of Bacteri- Miller, Micro-Organisms of the
ology. Human Mouth.

Dictionary:

Gould, Student's Medical Dic- Dorland.
tionary, or

ROSTER.*

FIRST-YEAR CLASS.—SESSION 1908-1909.

Order of Instruction before February 1.

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9 A. M.	Cornell. Osteology and Syndesmology.	Cornell. Osteology and Syndesmology.	Turner. Prosthetic Dentistry.	Class divided into Sections for Instruction in Prosthetic and Operative Technics.	Class divided into Sections for Instruction in Prosthetic and Operative Technics.	Dental Anatomy and Modeling tooth forms.
10 A. M.	Marshall. Chemistry.	Marshall. Chemistry.	Class divided into Sections for Instruction in Prosthetic and Operative Technics.			
11 A. M.	Physical Education.	Prosthetic and Operative Technics.	Class divided into Sections for Pract. Work in Chemistry and Histology.			
1.30 to 4 P. M.	Class divided into Sections for Pract. Work in Chemistry and Histology.	Class divided into Sections for Pract. Work in Chemistry and Histology.	Class divided into Sections for Pract. Work in Chemistry and Histology.	Class divided into Sections for Pract. Work in Chemistry and Histology.	3 P. M. Physical Education.	
4 P. M.	Piersol. Anatomy.	Piersol. Anatomy.	Marshall. Chemistry.	Piersol. Anatomy.	Piersol. Anatomy.	
5 P. M.		Dorrance. Anatomy Recitations.		Dorrance. Anatomy Recitations.		

* Rosters are subject to rearrangement at the beginning of each academic year.

SECOND-YEAR CLASS.—SESSION 1908-1909.

Order of Instruction before February 1.

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9 A. M.	Gritman. Prosthetic Technics.	Section Work in Prosthetic Dentistry, or Crown and Bridge Work, or Operative Clinic.	Bergey. Bacteriology.	Section Work in Prosthetic Dentistry, or Crown and Bridge Work, or Operative Clinic.	Section Work in Prosthetic Dentistry, or Crown and Bridge Work, or Operative Clinic.	Operative Clinic.
10 A. M.	Section Work in Prosthetic Dentistry, or Crown and Bridge Work, or Operative Clinic.		Section Work in Prosthetic Dentistry, or Operative Clinic.			
11 A. M.						
12 M.		Kirk. Clinical Dentistry.	Cryer. Oral Surgery.	Physiology Conference.	Physiology Conference.	Cryer. Oral Surgery.
1.30 to 4 P. M.	Section Work. Dissecting, Bacteriology, or Physiology Demonstrat n.	Section Work. Dissecting, Bacteriology, or Physiology Demonstrat n.	Section Work. Dissecting, Bacteriology, or Operative Clinic.	Section Work. Dissecting, Bacteriology, or Operative Clinic.	Section Work. Dissecting, Bacteriology, or Operative Clinic.	
4 P. M.	Reichert. Physiology.	Reichert. Physiology.	Truman. Materia Medica.	Reichert. Physiology.	Reichert. Physiology.	
5 P. M.	Turner. Prosthetic Dentistry.	Darby. Operative Dentistry.	Turner. Prosthetic Dentistry.	Darby. Operative Dentistry.	Truman. Dental Pathology and Therapeutics.	

THIRD-YEAR CLASS.—SESSION 1908-1909.

Order of Instruction before February 1.

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9 A. M.		Capon. Dental Ceramics.		Gritman. Prosthetic Technics.	Turner. Orthodontia.	
10 A. M.	Operative or Prosthetic Clinical Pract. Crown and Bridge Work.	Operative or Prosthetic Clinical Pract. Ceramics.	Operative or Prosthetic Clinical Pract.	Operative or Prosthetic Clinical Pract. Ceramics.	Operative or Prosthetic Clinical Pract. Ceramics.	Operative Clinic.
11 A. M.		Crown and Bridge Work.		Crown and Bridge Work.	Crown and Bridge Work.	
12 M.		Kirk. Clinical Dentistry.	Cryer. Oral Surgery.	Swing. Anaesthesia.		Cryer. Oral Surgery.
1.30 to 5 P. M.	Operative Clinic, Orthodontia, Inlay Work, Practical Metallurgy.	Operative Clinic, Orthodontia, Inlay Work, Practical Metallurgy.	Operative Clinic, Orthodontia, Inlay Work, Practical Metallurgy.	Operative Clinic, Orthodontia, Inlay Work, Practical Metallurgy.	Operative Clinic, Orthodontia, Inlay Work. 4 P. M. Peeso. Crown and Bridge Work	
5 P. M.	Turner. Prosthetic Dentistry.	Darby. Operative Dentistry.	Turner. Prosthetic Dentistry.	Darby. Operative Dentistry.	Truman. Dental Pathology and Therapeutics.	

Medical and Surgical Clinics at the University Hospital are held from 12 M. to 2 P. M., on Wednesdays and Saturdays, and are open to the Second and Third-year Classes. These are in addition to the dental clinics at the Philadelphia Hospital, on Saturdays at 12 o'clock, and to the Oral Surgical Clinics as noted on the roster.

OPERATING-ROOM, LABORATORIES, ETC.

The operative clinic room and laboratories are spacious and well equipped, affording ample facilities for the practical training of the student.

The dissecting-room is large, well lighted, thoroughly ventilated, and furnished with ample material for the successful prosecution of anatomical studies.

GRADATION OF THE COURSE.

In order to facilitate work in the practical branches, and to economize the student's time, the regular session is so arranged that students during the first year are required to devote the time equally to dental, histological and chemical laboratory work.

During the second and third years, the student has practically the entire forenoon of each day for dental work. Thus ample opportunity is afforded for practice in Operative and Mechanical Dentistry. In the latter branches, the students are divided into sections, devoting the time not otherwise engaged to practice in the operating-rooms.

This plan of gradation enables the First-year student to present himself for examination in the following branches: Chemistry, Histology and Anatomy, including Osteology and Myology, and on Progress in Mechanical Dentistry, Operative Technics and *Materia Medica*. The Second-year student will be examined on *Materia Medica*, Bacteriology, Applied Anatomy and Physiology, and on Progress in Operative and Mechanical Dentistry. Such an arrangement is economical not only in point of time, but also in facilitating a student's acquirement of knowledge in the remaining branches.

OUTLINE OF THE COURSE.*

FIRST YEAR.

Students of the First-year Class will be required to attend instruction in and pass examinations upon the following branches:

1. Chemistry. Three lectures a week. Five hours laboratory.
2. Anatomy. Four lectures a week. One-half the required work in dissecting is done during this year.

* See first paragraph under Mid-Term Examinations, p. 26.

3. Histology. Five hours laboratory a week.
4. Osteology. Two lectures a week.
5. Materia Medica. One lecture a week.
6. Students of the First-year Class will be trained in Operative and Mechanical Technics during hours not otherwise occupied.
7. They will, in addition to the subjects named, attend lectures on Operative and Mechanical Dentistry. Each one hour a week.
8. Physical Education. Two hours a week.

SECOND YEAR.

1. Students of the Second-year Class will attend lectures on Materia Medica, Physiology, Operative and Mechanical Dentistry and Metallurgy, Dental Pathology and Therapeutics, Clinical Dentistry, Bacteriology, Applied Anatomy and Oral Surgery. Work in Practical Anatomy (dissecting) is finished during this year.
2. They will pursue Operative and Mechanical Work, with the privilege of the operating-room and appliances during the morning and afternoon clinics.
3. The final examinations of the second year will be upon Materia Medica, Physiology, Bacteriology, Applied Anatomy and Progress in Operative and Mechanical Dentistry

THIRD YEAR.

1. Students of the Third-year Class will continue the practical work in Operative Dentistry, Mechanical Dentistry and Dental Metallurgy, and the lectures on these subjects, together with Dental Pathology and Therapeutics, Clinical Dentistry, Oral Surgery and Orthodontia.
2. Examinations at mid-term of the third year will be held upon one-half of the subject of oral surgery and upon the following minor subjects: Dental Metallurgy, Ceramics, Crown-and-Bridge Work, Orthodontia and Anesthesia.
3. At the close of the term, examinations will be held upon Operative Dentistry, Prosthetic Dentistry, Dental Pathology and Therapeutics, Clinical Dentistry and Oral Surgery.

COURSE OF INSTRUCTION.

The lectures on OPERATIVE DENTISTRY AND DENTAL HISTOLOGY embrace the comparative anatomy of the teeth; the functions and microscopical peculiarities of the dental organs; the development of teeth and their component tissues; a full description of the elucidation of all dental operations, such as filling, extracting and regulating; the pathological relations of the teeth to the other parts

of the system; and a minute description of all diseases related to dental surgery or of interest to the dentist. The methods taught are demonstrated in clinics.

The course of instruction in MECHANICAL DENTISTRY is a graded one, and is arranged to embody in the teaching of the first year the fundamental principles of prosthetic work, including the properties of the materials used for prosthetic purposes and the various mechanical processes involved in their utilization; in the second year a more specific and extended instruction in these procedures is given, and the finger-skill necessary in the usual mechanical operations is developed; while in the third year the student is instructed in the choice of means for attaining a given end, and the selection of this means in accordance with the requirements of specific cases. During the third year attention is given to the more highly specialized branches of Prosthetic Dentistry under qualified demonstrators.

Instruction in Mechanical Dentistry is accomplished by didactic lectures illustrated by means of heroic models, lantern slides, and blackboard drawing; by graded technic courses, which include in each year illustration of the lecture topics by actual demonstration of the processes before the class, and the manufacture of the appliances so illustrated by the class, divided into small sections for systematic work; by specimens on exhibition in the general laboratory illustrative of successive stages in the technic requirements; and by abundant clinical practice.

The lecture course will include, in addition to dental prosthesis the replacement of tissues about the mouth not strictly dental, and the manufacture of appliances for the remedy of palatal defects.

The instruction in ORTHODONTIA will be by means of lectures, quizzes, a technic course and clinical practice; and attention will be specially paid to the treatment of cases in the light of their etiology.

The lectures on CHEMISTRY embrace the study of chemical physics and principles of chemical philosophy, together with a detailed consideration of the principal elementary substances and their compounds; and of the fundamental principles of Organic Chemistry, including the classification of organic compounds, and the special study of typical members of the different classes. Special attention is also given to the laws of chemical affinity, and the conditions under which they are modified, especially as they relate to the preparation of mixtures and prescriptions.

The course in PRACTICAL CHEMISTRY in the laboratory includes exercises in chemical manipulation; the study of the chemical prop-

erties of the principal metals; the reactions of acids and their combinations; and the general principles of qualitative analysis, especially as they relate to the detection and separation of the metals and compounds of interest to practitioners of Dentistry. Each student is provided with a separate table and apparatus, and is required to perform all the usual chemical manipulations under the directions of demonstrators, as well as to exhibit by written formulæ all reactions involved in his tests.

HUMAN ANATOMY is taught in its relations to all the branches of medical science, including Dentistry. The lectures are illustrated by fresh dissections of the human body, and by a rich museum of anatomical specimens, well-executed models and drawings.

In addition to the lectures and demonstrations by the Professor of Anatomy, a course of demonstrations in Applied Anatomy is given to the students of the second year. The course consists of a drill by recitations and demonstrations of dissections upon those anatomical regions with which the dental and oral surgeon is especially concerned. Practical instruction in general and special HISTOLOGY will be given in the histological laboratory to the students of the first year, the class being divided into sections. The laboratory is furnished with excellent microscopes, and all apparatus necessary to enable the student to become familiar with the most approved methods of microscopical technology and with the minute structure of all the tissues and organs. Special facilities are afforded for original research; for this purpose the laboratory is open throughout the year, except during July and August.

The OSTEO-SYNDESMOLOGICAL LABORATORY is under the supervision of the Professor of Anatomy and Demonstrator of Osteology. In this laboratory, the first-year student is required to make himself familiar with the skeleton and the articulations as a part of his instruction in practical anatomy.

The course in PHYSIOLOGY includes thorough instruction on the subject of animal physiology, with special reference to the physiology of Man.

The lectures on DENTAL PATHOLOGY include such portions of general pathology as have a bearing upon the special subjects taught.

Dentition and its possible pathological results receive careful attention, followed by a detailed consideration of all the diseases to which the teeth and surrounding parts are liable; the normal and abnormal character of the oral secretions, and the direct and remote relations that the pathological conditions of the mouth sustain to other portions of the system.

The treatment required under each head is explained, and the recognized processes necessary to secure a return to normal conditions are minutely detailed.

MATERIA MEDICA is taught with special reference to the character and value of those remedies which have any bearing upon dental therapeutics.

BACTERIOLOGY.—The study of BACTERIOLOGY is an obligatory part of the second year curriculum. The growing importance of this subject in relation to dental pathology and therapeutics has made necessary certain modifications in the technique of nearly all dental operations. A clear understanding of the practical bearing of bacterial life-processes has become a necessity for intelligent and successful dental practice, just as it has similarly for surgical practice.

The course is so arranged with respect to the requirements of the dental practitioner that he will afterwards be able not only to apply correctly the most approved methods for preventing and combating bacterial action, and to develop an efficient system of antiseptic technique in connection with his work; but he will also be trained in the several methods that will enable him to study the bacterial factor which is the exciter of pathological conditions in special cases arising in his practice.

The instruction in BACTERIOLOGY, which is under the direction of Dr. A. C. ABBOTT, Professor of Bacteriology and Director of the Laboratory of Hygiene, is principally practical and embraces full laboratory instruction, covering the following subjects:

1. Apparatus employed—sterilizers, incubators, pressure regulators, thermostats, etc.
2. Culture media, methods of preparation, sterilization methods.
3. Microscopic characteristics of cultures of bacteria in general and of special forms.
4. Methods of obtaining, from mixtures of different bacteria, individual species in pure cultures.
5. Microscopic technique. Use and care of instruments, staining from cultures, section cutting and staining and mounting of tissues.
6. Pathogenic bacteria, isolation, identification and inoculation.
7. Disinfection of instruments, appliances, etc., thermal and chemical, methods and apparatus, modes of testing efficiency.
8. Antisepsis and asepsis in dental surgery, preparation of dressings, instruments, operator and assistants and of patients.

Following this, the special study of Bacteriology in relation to dental pathological conditions will receive full consideration and elaboration. The classification, life-history, modus of infection and pathological significance of all bacterial forms having distinct dental importance will be studied in detail.

The lectures on these subjects are appropriately illustrated, and accompanied by suitable demonstrations whenever possible. The Laboratory of Hygiene has a thoroughly equipped department for practical instruction in Bacteriology, including an ample number of high-grade microscopes for the special use of dental students in the study of this branch. Examination upon the subject will be a prerequisite to the obtaining of the dental degree.

CLINICAL DENTISTRY.—The instruction in this department has for its object the study of the whole range of dental operations as they arise in practice, especially from the clinical point of view.

The valuable clinical material which is afforded by the large Dental Infirmary service of the University is utilized as the basis of the instruction given, both didactically and by demonstration. Cases are continually presenting for treatment in the Infirmary which furnish important points for study, and whenever these form suitable subjects for demonstration a study of the case is made for the benefit of the class. The student is thus brought into close contact with a great variety of dental and oral disorders, and is made familiar with the methods of diagnosis and the etiology and treatment of the conditions with the actual cases before him.

The teaching in this department includes, besides the foregoing, a study of the professional relations of the dentist to his patients, involving matters of deportment, habits of personal cleanliness, etc.; in short, all those factors of professional conduct and bearing which, taken altogether, determine the measure of his professional success.

In the lectures on **CLINICAL DENTISTRY**, all of the latest developments in operative procedures, so far as they may have value from the clinical standpoint, are presented and critically considered.

ORAL SURGERY is a specialty which is a distinct outgrowth from Dentistry. As the work of the dentist came to include operations upon the surrounding tissues, as well as upon the teeth themselves, the adoption of surgical methods and more thorough training in the principles and practice of surgery became necessary. The addition of instruction in this branch to the dental curriculum includes thorough instruction in the surgical and pathological anatomy of the mouth, jaws, and associate parts; the etiology, diagnosis and

treatment of lesions of these parts; the most advanced methods of operative technique, including the use of the surgical engine, surgical anesthesia, asepsis and antisepsis, and after-treatment of the case.

The instruction is both didactic and clinical, and students are encouraged to study and personally treat cases under the supervision of the Professor of Oral Surgery and his assistants.

Special facilities for the performance of oral surgical operations and for the care of patients are provided in the University Hospital and the Philadelphia Hospital.

CLINICAL PRACTICE.

Seven hours daily (except on Saturdays) are spent in actual practice under the supervision of the demonstrators; on Saturdays from 9 A. M. to 12 M. Every student is required to provide his own instruments, except those for extracting. He is expected to keep them in perfect order, and will be furnished with a place in which they can be locked when not in use.

INFIRMARY AND LABORATORIES.

The Infirmary and Laboratories are open to the students for practice every day during the week, except on Saturday afternoons, which are reserved for clinics that may be given by members of the Faculty or instructors.

The Infirmary and Laboratories are open throughout the year, except during July and August.

MUSEUM AND CABINETS.

The WISTAR AND HORNER MUSEUM, founded about one hundred years ago, and annually augmented, is unequaled in the United States for the number and variety of its specimens of the normal and the morbid anatomy of the human body. It also contains a large number of preparations in Comparative Anatomy; a rich collection relating to Dentistry, such as the different stages of dentition, abnormal conditions of the teeth, mandibles of the lower animals, etc.; and an extensive collection of models. This collection is deposited in the building opposite Logan Hall, erected by the late General Isaac J. Wistar, and called the WISTAR INSTITUTE OF ANATOMY AND BIOLOGY. The Museum is open every week-day, excepting holidays, from 9 A. M. to 4 P. M., throughout the sessions. The matriculation fee in the Department of Dentistry confers admission to the Museum.

TUITION FEES AND EXPENSES.*

The tuition fee is \$150 per annum and is due and payable in two equal parts, on October 1 and February 1, respectively. Remittances should be in cash, or by bank draft, certified cheque, or postal money order drawn for the exact amount due, made payable to the University of Pennsylvania, and paid to W. O. Miller, Bursar, Room 102, College Hall. A percentage is added to fees not paid within thirty-one days.

A matriculation fee of \$5.00 must be paid by all new students in the department, whether previously registered in another department or not.

The matriculation fee must be paid in person and not forwarded in advance.

Under no circumstances are any changes made in the established fees.

Every student shall upon entering the University make a deposit of \$5.00 to cover loss, damage, or breakage of University property, library fines, or any charge not paid by the student in some other way. A student whose deposit is by charges against it reduced to \$2.50 or less shall be required to pay a sum sufficient to restore the deposit to its original amount. No deposit or balance remaining on a deposit shall be finally repaid to a student until he shall have been graduated or shall have formally withdrawn from the University.

Students of the Department of Dentistry may attend, without additional charge, the lectures and recitations in any other department of the University. This privilege may be obtained only by the concurrent approval, in writing, of the respective Deans.

Instruments for the first year can be procured at from \$60 to \$75. A dental engine will be needed for the second year, costing from \$40 to \$60. Additional instruments will be required for the second-year and third-year work. These instruments may be utilized in general practice.

Rooms may be had at the University Dormitories or in houses near the University, and board may be had in private boarding houses in the immediate vicinity of the University. In any case the cost of board and lodging will be from \$5.00 a week upward.

Dental Hall is provided with locker facilities for the storage of instruments, apparel, etc. It is to be understood, however, that

* For Estimate of Expenses, see pages 40-42.

the lockers are provided solely as an accommodation, and that in renting them to the students the Department assumes no responsibility whatever with respect to the care or loss of the contents.

First Year.

Matriculation Fee (paid once only)	\$5 00
Tuition Fee	150 00
Gymnasium and Houston Club Fee	10 00
Fee for Dissection	5 00
Use of Dissecting Material (one part).....	1 50
Breakage Deposit	5 00

Second Year.

Tuition Fee	\$150 00
Gymnasium and Houston Club Fee	10 00
Fee for Dissection	5 00
Use of Dissecting Material (one part).....	1 50

Third Year.

Tuition Fee	\$150 00
Gymnasium and Houston Club Fee	10 00

Further information may be obtained from

EDWARD C. KIRK, Dean.

The Dean's office is in Room 39, Dental Hall, Thirty-third and Locust streets. Office hours: 9 A. M. to 1 P. M., daily.

The total number of new matriculates for the present session, including those admitted to advanced standing, is 157.

Since the foundation of this department, the total number of graduates has been 2,398.

The subjoined reports give some conception of the character and mass of work performed in the Operative and Prosthetic Departments; but the amount of costly material and careful attention necessary for the insertion of 5,850 gold fillings can be appreciated only by the experienced operator.

The number of patients (11,970) exhibits the extent of the Dental Infirmary service to a large class of persons of limited means.

OPERATIVE DEPARTMENT.

Gold fillings	5,850
Tin fillings	7,093
Amalgam fillings	2,686
Cement fillings	1,325
Treatment of pulp and pulp canals	3,340
Extractions	2,966
Porcelain Inlays	501
Miscellaneous	649
Total	<u>24,410</u>

Seventy-three ounces (6 lbs. 1 oz.) of gold were used for filling, exclusive of that used for plate and crown work in the Laboratory.

PROSTHETIC DEPARTMENT.

Full Dentures (Clinical, 124—Technic, 938)	1,062
Partial Dentures (Clinical, 119—Technic 621)	740
Artificial Crown Work (Clinical, 300—Technic, 1,254)	1,554
Repair cases	155
Bridge Work—Clinical	44
Bridge Work—Technic	332
Continuous Gum Bridge	109
Interdental Splints	110
Regulating Plates and Appliances	158
Total	<u>4,254</u>

ESTIMATE OF EXPENSES.

FIRST YEAR.

Matriculation Fee	\$5 00
General Tuition Fee	150 00
Gymnasium and Houston Club Fee	10 00
Dissecting Fee	5 00
Use of Dissecting Material (one part)	1 50
Breakage Deposit	5 00
Books (about)	30 00
Instruments (about)	70 00
Deposit for lockers	2 00
Materials for Histological and Prosthetic Work	6 00
Board, 35 weeks at \$5.00	175 00
Washing, 35 weeks at 75 cents	26 25
Total, first year	<u>\$485 75</u>

SECOND YEAR.

General Tuition Fee	\$150 00
Gymnasium and Houston Club Fee	10 00
Dissecting Fee	5 00
Use of Dissecting Material (one part)	1 50
Dental Engine, instrument (about)	50 00
Additional instruments (about)	90 00
Books (about)	20 00
Deposit for lockers	2 00
Material for Prosthetic Technic Work	2 00
Board, 35 weeks at \$5.00	175 00
Washing, 35 weeks at 75 cents	26 25

Total, second year\$531 75

THIRD YEAR.

General Tuition Fee	\$150 00
Gymnasium and Houston Club Fee	10 00
Class expenses: rental of Cap, Gown, and Hood	5 00
Instruments (about)	30 00
Deposit for lockers	2 00
Material for Prosthetic Technic Work	2 00
Material for Ceramic Work	5 00
Board, 37 weeks at \$5.00	185 00
Washing, 37 weeks at 75 cents	27 75

Total, third year.....\$416 75

STUDENTS.

THIRD-YEAR CLASS.

Name.	Residence.	City Address.
Acosta, Eduardo,	Camaguey, Cuba,	3730 Walnut St.
Allison, Henry Kiver,	Christchurch, N. Z.,	Dorm. 50 Morris.
Andrews, Joseph Elliott,	Wellsville, Ohio,	3723 Spruce St.
Angulo, Luis Raul,	San Vicente, El Salvador, C. A.,	221 S. 33d St.
Ashelman, Samuel Freas,	Benton,	223 S. 33d St.
Balderston, George Egerton,	Vancouver, B. C.,	126 S. 34th St.
Barrett, Joseph James,	Syracuse, N. Y.,	3612 Walnut St.
Beach, Irvin Halsey,	Jersey City, N. J.,	3643 Woodland Ave.
Beauchamp, Charles Wesley,	Westover, Md.,	3467 Chestnut St.
Beckett, Herbert Patrick,	Fall River, Mass.,	3714 Locust St.
Billings, Harry LeRoy,	Springfield, Mass.,	3730 Walnut St.
Blum, Theodor,	Vienna, Austria,	109 S. 34th St.
Bolard, David Albert,	Philadelphia,	824 N. 5th St.
B. S. (Pennsylvania),		
Bor, Hendrik Hermann	Utrecht, Holland,	3262 Chestnut St.
Theodorus Ariè,		
Brachman, Herman Joseph,	Philadelphia,	2130 South St.
Bristol, Rolla Jay,	Bristol, Vt.,	20 N. 36th St.
Broughton, Frank William	Sydney, Australia,	3420 Sansom St.
Walford, B. D. S. (Sydney),		
Brown, Edward Leo,	Tunkhannock,	3730 Walnut St.
Brown, William Allen,	Key West, Fla.,	3730 Walnut St.
Bull, Reginald Arthur,	Sydney, Australia,	3406 Sansom St.
Bushong, Stuart Franklin,	Brooklyn, N. Y.,	3239 Sansom St.
Cairns, Frank Aloysius,	Newark, N. J.,	3305 Walnut St.
Calhoun, William Henry,	Bridgeport, Conn.,	Dorm. 45 Memorial.
Caminha, Brenno Amaro,	Uruguayana, Brazil,	3222 Sansom St.
Carrera, Luis de la,	Santiago, Chile,	Dorm. 122 McKean.
B. Ph. Sc., Dentista (Chile),		
Cerda, Gonzalo de la,	Retalhulen, Guatemala, C. A.,	117 S. 34th St.
Chapman, Frank Augustus,	S. Glenn Falls, N. Y.,	3435 Lancaster Ave.
Clifford, William David,	Ogdensburg, N. Y.,	20 N. 36th St.
Colborn, Clarence Roth,	Ashley,	3612 Walnut St.
Collard, Henri,	Krommenie, Holland,	Dorm. 24 Morgan.
Cosgrove, John Irving,	Sydney, Australia,	3704 Baring St.
Cragin, Arthur Mantor,	Kingston, N. Y.,	3612 Walnut St.
Crockett, Lawrence Charles,	Northampton,	3325 Chestnut St.
L.D.S. (England),	England,	
Dalrymple, John Hamilton,	Hamilton, Brisbane, Australia,	202 S. 37th St.
Davis, Harold Evans,	Dunmore,	Dorm. 45 Memorial.
Dayton, Charles Richard,	Hudson, N. Y.,	Dorm. 221 McKean.

Name.	Residence.	City Address.
Demarquette, Jacques Colin Frederic, D. E., D. P., Chirurgien Dentiste (Paris),	Paris, France,	3717 Spruce St.
Deschler, George Lancelot,	Invercargill, N. Z.,	3404 Sansom St.
Devine, Edmund Atwell,	Trainer.	
Doran, Charles Henry,	Danbury, Conn.,	3258 Chestnut St.
Ettenson, Herman,	Brooklyn, N. Y.,	3249 Locust St.
Faulkner, Niles Maxon,	Oneida, N. Y.,	20 N. 36th St.
Feely, James Francis,	Philadelphia,	2327 Catharine St.
Freitas, Pedro Baptista Gomes de,	Pelotas, Brazil, S.A.,	3338 Walnut St.
Frost, William John,	Springfield, Mass.,	3730 Walnut St.
Galbreath, Donald Lindsay,	Hanover, Germany,	3413 Walnut St.
Gavin, John Joseph,	Cohoes, N. Y.,	205 S. 33d St.
Gick, Hubert George, D. E., D. P., Chirurgien Dentiste (Paris),	Paris, France,	3739 Spruce St.
Gingras, Ivar Charles,	Turner Falls, Mass.,	3730 Walnut St.
Girard, Ernest Emil, Medicin Chirurgien Dentiste (Suisse),	Biel, Switzerland,	3222 Sansom St.
Girardin, Maurice Charles, D. E., D. P., Chirurgien Dentiste (Paris),	Paris, France,	3717 Spruce St.
Gitt, Chester Nathaniel,	Littlestown,	3467 Chestnut St.
Godfrey, Edward Carl,	Dover, N. H.,	Dorm. 221 McKean.
Greenwell, Earl Ellsworth,	Ogden, Utah,	3346 Lancaster Ave.
Grosse, Edward Henry, B. D. S. (Sydney),	Sydney, Australia,	3730 Sansom St.
Gunn, Gordon Melton,	Timaru, N. Z.,	109 S. 34th St.
Hallander, Harald Anders Jean, Tandlage (Copenhagen),	Horsens, Denmark,	3611 Locust St.
Hamilton, Fred Browning,	Scranton,	Dorm. 44 Memorial.
Harris, Michael Benedict,	Newark, N. J.,	Dorm. 22 Bishop White.
Hartranft, John Leon,	Canton,	3467 Chestnut St.
Heintz, William John,	Utica, N. Y.,	20 N. 36th St.
Hess, Jerome Gross,	Manheim,	3305 Walnut St.
Hoot, William Irving,	Rochester, N. Y.,	207 S. 33d St.
Horahan, William Henry,	North Adams, Mass.,	3714 Locust St.
Hordern, Herbert Vivian,	Sydney, Australia,	3537 Locust St.
Jenney, Rollin Dewey,	Bennington, Vt.,	Dorm. 41 Morris.
Johnson, James Hoffer,	Carbondale, Col.,	3341 Woodland Ave.
Jones, Edward George,	Bowral, Australia,	3271 Locust St.
Jones, John Watkins,	Scranton,	3730 Walnut St.
Keane, James Henry,	Danbury, Conn.,	3258 Chestnut St.
Keim, Carl Fred,	Harrisburg,	3467 Chestnut St.
King, J. Craig,	Reynoldsville,	3326 Walnut St.
Kirkpatrick, Harry McDonald,	Highspire,	3467 Chestnut St.
Krause, Eugene Kienzle,	Philadelphia,	4922 Cedar Ave.
Kuttner, Joseph,	New York, N. Y.,	3249 Locust St.

Name.	Residence.	City Address.
Kuyk, Jan Willem van,	The Hague, Holland,	3332 Lancaster Ave.
Lauder, Edwin George, Jr.,	Philadelphia,	3210 Race St.
Llewellyn, Lionel Jeffrey,	Braidwood, Australia,	3249 Sansom St.
Loeb, Morton Joseph,	New Haven, Conn.,	122 S. 34th St.
Loureiro, Fabio Leite,	Manaos, Brazil,	215 S. 33d St.
Madigan, George Francis,	Coxsackie, N. Y.,	3612 Walnut St.
Mallon, Charles Augustus,	Philadelphia,	1511 N. 17th St.
Marron, Samuel Hugh,	Geelong, Australia,	214 S. 37th St.
L. D. S. (Melbourne),		
Marshall, Frank,	Sydney, Australia,	3420 Sansom St.
B. D. S. (Sydney),		
Maslen, James Carr,	Pittsfield, Mass.,	3271 Sansom St.
Mikola, William J.,	Paterson, N. J.,	Dorm. 10 E. F. Smith.
Miller, Israel Samuel,	Philadelphia,	1519 S. 6th St.
Morris, Edwin Royle,	Paterson, N. J.,	15 N. 34th St.
Nachtigall, Karl,	Darmstadt,	121 S. 34th St.
Zahnarzt (Germany),	Germany,	
Neagley, Lewis Edwin,	Milton,	1201 N. 25th St.
O'Curry, Eugene John,	Buenos Aires, S. A.,	215 S. 33d St.
O'Farrell, Joseph Ignatius,	Buenos Aires, S. A.,	3411 Walnut St.
O'Farrell, Joseph James,	Buenos Aires, S. A.,	3411 Walnut St.
Olier, Carmelo,	Cartagena, Colom- bia, S. A.,	108 S. 33d St.
Paine, William Samuel,	Ogden, Utah,	3330 Lancaster Ave.
Percival, Seymour Thomas,	Pitman, N. J.,	101 S. 33d St.
Peters, Rollo Oliver,	Slatington,	3244 Sansom St.
Pike, Isaac Smedley, Jr.,	Media.	
Plata, Mitridates,	Piura, Peru, S. A.,	3441 Walnut St.
Quigley, James Joseph,	Lee, Mass.,	109 S. 34th St.
Reagan, Charles William,	St. Albans, Vt.	
Robles, Rafael, Jr.,	Antigua, Guate- mala, C. A.,	221 S. 33d St.
Rogers, William Harry,	Wheeling, W. Va.,	3467 Chestnut St.
Ruempler, William John	Berlin, Germany,	122 S. 34th St.
Charles, Zahnarzt (Germany),		
Ryan, Charles Hills,	Lakeside, N. B., Canada,	Dorm. 24 E. F. Smith.
Sanderson, Mortimer,	New York, N. Y.,	5326 Greenway Ave.
Satchell, Glanville Kossuth,	Sydney, Australia,	3406 Sansom St.
Scherer, John William,	East Orange, N. J.,	3730 Walnut St.
Scott, Joseph Wilbur,	Ticonderoga, N. Y.,	207 S. 33d St.
Seitz, Paul,	Tuttlingen, Germany,	3350 Walnut St.
D. E., D. P., Chirurgien		
Dentiste (Paris),		
Serre, George Norton,	Danbury, Conn.,	3733 Locust St.
Smith, Arthur William,	Rochester, N. Y.,	225 S. 33d St.
Smith, Walter Cornell,	Watertown, N. Y.,	207 S. 33d St.
Snively, Norman Ray,	Altoona,	3326 Walnut St.
Sobel, Samuel,	New York, N. Y.,	3714 Locust St.
Solas, Fulgence Lucien,	Sens, France,	3717 Spruce St.
D. E., D. P., Chirurgien		
Dentiste (Paris),		

Name.	Residence.	City Address.
Soxhlet, Paul Victor,	Philadelphia,	Dorm. 34 E. F. Smith.
Stevens, Frederick Charles,	Vineland, N. J.,	3244 Sansom St.
Taylor, William Denton,	Newark, N. J.,	Dorm. 53 Morris.
Tebbutt, Edwin Spencer,	Northampton,	3325 Chestnut St.
L.D.S. (England),	England,	
Wagg, Charles Edgar,	Manasquan, N. J.,	3612 Walnut St.
Warburton, Maynard Bruce,	Campbellsville,	225 S. 33d St.
Warner, Sydney Stark,	Wilkesbarre,	Dorm. 452 New York Alumni.
Watts, William,	Newark, N. J.,	3467 Chestnut St.
Wessner, George Alfred,	Allentown,	Dorm. 221 McKean.
Wheless, Robert Lunsford,	Dallas, Texas,	3314 Walnut St.
Wilcox, Thomas Lowry,	Philadelphia,	82 W. Johnson St., Gtn.
Wilkinson, Charles Henry,	Syracuse, N. Y.,	3314 Walnut St.
Wilkinson, William Jefferson,	Kangaroo Valley,	3404 Sansom St.
	Australia,	
Wren, Edwin St. Clair,	Boyertown,	3467 Chestnut St.
Zimmermann, Adolphe,	Paris, France,	3222 Sansom St.
D. E., D. P., Chirurgen		
Dentiste (Paris),		

SECOND-YEAR CLASS.

Abbott, Ernest Andrew,	N. Attleboro, Mass.,	Dorm. 375 Hopkinson.
A'Court, Frank Clifford,	Christchurch, N. Z.,	3730 Sansom St.
Applegate, Albert Milne,	Asbury Park, N. J.,	102 S. 33d St.
Arnold, Howard Bayles,	Morristown, N. J.,	3223 Sansom St.
Batemen, Henry Oxley,	Brooklyn, N. Y.,	123 S. 36th St.
Beams, Walter Albert,	Newark, N. J.,	3612 Walnut St.
Beck, Berton Elmer,	Cogan House,	208 S. 37th St.
Behney, Byron Stanley,	Carlisle,	3737 Spruce St.
Bell, Thomas,	Auckland, N. Z.,	3332 Lancaster Ave.
Bender, Reinhardt Paul,	Paterson, N. J.,	3467 Chestnut St.
Bentley, Harvey Wilcox,	Salem, N. Y.,	3341 Woodland Ave.
Blumer, Gabriel Edward,	Syracuse, N. Y.,	3467 Chestnut St.
Burge, Cecil John,	Sydney, Australia,	109 S. 34th St.
Caldwell, George Worth-	Philadelphia,	619 S. 48th St.
ington,		
Campbell, Arthur Albion,	Claremont, N. H.,	Dorm. 49 Morris.
Carson, Robert Edward	Philadelphia,	1131 S. 46th St.
Vincent,		
Castro, Herman de,	Lima, Peru,	Dorm. 421 McKean.
Castro, Marco Tulio de,	Barranquilla,	25 N. 34th St.
	Colombia, S. A.,	
Castro, Ruben Dario,	Heredia, Costa Rica,	3301 Walnut St.
	Central America,	
Cheney, Howard Alonzo,	Watertown, N. Y.,	3612 Walnut St.
Cloutier, Daniel Henry,	Woonsocket, R. I.,	3612 Walnut St.
Colyer, George Clifford,	Freeport, N. Y.,	3730 Walnut St.
Conran, James Jacob,	Torrington, Conn.,	215 McAlpin St.
Criswell, James Carl,	West Grove,	3267 Sansom St.

Name.	Residence.	City Address.
Crowell, Eldon Lewis,	Middletown, Conn.,	3612 Walnut St.
Crowley, William James,	Bangor, Me.,	202 S. 37th St.
Day, Laurence Bret,	Adelaide, Australia,	Dorm. 24 Coxe.
Dear, David Philip,	Wollongong, Australia,	109 S. 34th St.
Decker, William Clyde,	Huntingdon,	122 S. 33d St.
Delgado, Luis Carlos,	Cartagena, Colom- bia, S. A.,	108 S. 33d St.
DeLong, Clarence Stoudt,	Reading,	Dorm. 42 Memorial.
Egan, Charles Francis,	Waterbury, Conn.,	3314 Walnut St.
Embler, Ralph,	Newburgh, N. Y.,	Dorm. 438 Hopkinson.
Fenn, Albert William Back- well,	Southport, England,	3271 Locust St.
Friederich, Ernest Philip,	Arnhem, Holland,	3262 Chestnut St.
Galvão, Henrique Feio,	Rio de Janeiro, Brazil, S. A.,	3338 Walnut St.
Gierding, Ernest Charles,	Belleville, N. J.,	3318 Walnut St.
Giesecke, Max,	Denver, Col.,	3810 Powelton Ave.
Glaser, Karl,	Newark, N. J.,	Dorm. 28 Morris.
Goldsmith, Julius,	Reading,	218 S. 37th St.
Gould, Leslie Albert,	Watertown, N. Y.,	3612 Walnut St.
Graham, Frank Hannibal,	Sydney, Australia,	3271 Locust St.
Graver, Milton Franklin,	Bath,	Dorm. 311 Phillips Brooks.
Gunter, John Havelock,	Fredericton, N. B., Canada,	124 S. 34th St.
Haley, Robert Joseph,	Springfield, Mass.,	3612 Walnut St.
Hallenberg, Victor,	Fargo, N. D.,	Dorm. 54 Memorial.
Ham, Joseph Thomas,	Buenos Aires, S. A.,	4322 Market St.
Hanna, Jacob Glen,	Olympia, Wash.,	3409 Walnut St.
Harkins, Cloyd Summer- field,	Philipsburg,	3612 Walnut St.
Harrison, Forrest Mayes,	Altoona,	3467 Chestnut St.
Hart, Samuel Corinaldi,	Montego Bay, Ja- maica, W. I.,	3223 Sansom St.
Hasselt, Ludolph Theodorus Arend van,	The Hague, Holland,	3336 Lancaster Ave.
Haywood, Leo Paul,	Wellington, N. Z.,	3332 Lancaster Ave.
Hebert, Octave Napoleon,	Cohoes, N. Y.,	3407 Walnut St.
Heemskerck Düker, Jan Herman van,	Hilversum, Holland,	3336 Lancaster Ave.
Hennessy, Daniel John,	Hoosick Falls,	3601 Sansom St.
Herder, Samuel,	New York, N. Y.,	2511 N. 33d St.
Hirtle, Jerome Evar,	Mahone Bay, N. S., Canada,	215 McAlpin St.
Holmes, Harold Brainerd,	West Winfield, N. Y.,	3271 Sansom St.
Holton, Thomas Aloysius,	Philadelphia,	1717 N. 7th St.
Ivory, James Thomas,	Norwich, N. Y.,	126 S. 34th St.
Kelley, Frank John,	S. Norwalk, Conn.,	3604 Walnut St.
Kelly, Daniel Joseph,	Fall River, Mass.,	3714 Locust St.
Kelly, William Carpenter, B. S. (Bucknell),	Lewisburg,	5251 Spruce St.

Name.	Residence.	City Address.
Ketcham, Stuart Theodore,	Stamford, Conn.,	3412 Sansom St.
Knopf, Isadore Harold,	Wallingford, Conn.,	209 S. 33d St.
Koch, Otto Paul,	The Hague, Holland,	3332 Lancaster Ave.
Koontz, Howard Samuel,	Woodfield, Ohio,	3706 Walnut St.
Labarraque, y Arnaud Victor,	Guantanamo, Cuba,	111 S. 34th St.
Lash, Clarence Henry,	Loveland, Colo.,	3424 Sansom St.
Le Houillier, Emerson John,	Wallingford, Conn.,	3314 Walnut St.
Lewis, Charles Walter, Jr.,	Albany, N. Y.,	3730 Walnut St.
Lindstedt, Theodore Kent,	Greenwich, Conn.,	Dorm. 24 Rodney.
Litchfield, Murray Kingsley,	Christchurch, N. Z.,	216 DeKalb St.
Long, Millard Bean,	Camden, Me.,	3743 Spruce St.
Long, Orville Smith,	Wolf Hill, N. Y.,	223 S. 33d St.
McElhone, George Hill,	Sydney, Australia,	3271 Locust St.
Martin, Ernest Sidney,	Melbourne, Australia,	3706 Spruce St.
Meaney, Vincent Timothy,	Danbury, Conn.,	3612 Walnut St.
A. B. (Holy Cross),		
Meeker, Robert Wilson,	Plainfield, N. J.,	3314 Walnut St.
Meter, Frank William,	Rome, N. Y.,	126 S. 34th St.
Moffatt, William Harrison,	Binghamton, N. Y.,	3339 Woodland Ave.
Norton, Richard Henry, Jr.,	Somerville, Mass.,	3400 Walnut St.
Noyes, Byron Ellsworth,	Watertown, N. Y.,	3473 Sansom St.
Nutter, George Abel,	Orange, N. J.,	3612 Walnut St.
O'Brien, John Robert,	Olyphant,	Dorm. 40 Bishop White.
Paull, Wilton Colt,	Buffalo, N. Y.,	23 S. 34th St.
Pipes, Hugh Graham,	Presque Isle, Me.,	216 S. 37th St.
Pizarro, Edmundo,	Cartagena,	221 S. 38th St.
	Colombia, S. A.,	
Potts, Lemuel Eastburn,	Pottstown,	202 S. 37th St.
Pulver, Peter Carvey,	Penn Yan, N. Y.,	3805 Locust St.
Raffman, Abraham,	Bloomington, N. J.,	3608 Locust St.
Rapp, Ira Miller,	Lyon Station,	Dorm. 49 E. F. Smith.
Roberts, David Stephen,	Fort Edward, N. Y.,	3265 Chancellor St.
Sawyer, Samuel Rutherford,	Tuckerton, N. J.,	3339 Woodland Ave.
Scaglione, John Alexander,	Paris, France,	3257 Chancellor St.
M. D. (Rome),		
Schaffner, Gerald Frederic,	Florence, Italy,	3730 Sansom St.
Siegler, Frank Joseph,	Doylestown,	3615 Locust St.
Smith, David Scull,	Philadelphia,	3407 Chestnut St.
Smith, Edwin Reynolds,	Schenectady, N. Y.,	3341 Woodland Ave.
Smith, Frederick,	Newburgh, N. Y.,	Dorm. 375 Hopkinson.
Smith, Florentine Rolland,	Jersey City, N. J.,	Dorm. 45 Coxe.
Snyder, Charles Victor,	Lancaster,	Dorm. 378 Hopkinson.
Solis, Crocker Ernesto,	Guatemala City,	117 S. 34th St.
	Guatemala, C. A.,	
Stebbins, Arthur King,	Tacoma, Wash.,	3322 Woodland Ave.
Steeves, Simeon Aaron,	Moncton, N. B.,	124 S. 34th St.
	Canada,	
Stillwell, Edward Courtenay,	East Orange, N. J.,	Dorm. 24 Rodney.
Stoddard, Fred W.,	Loveland, Colo.,	3424 Sansom St.
Stoddard, Ralph Roswell,	Newington, Conn.,	3612 Walnut St.
Strous, William Everett,	Kingston,	122 S. 33d St.

Name.	Residence.	City Address.
Sutton, Rupert Ingram,	Masterton, N. Z.,	213 DeKalb St.
Talley, Dyer Beeler,	Syracuse, N. Y.,	3467 Chestnut St.
Taylor, George W.,	Ocean Grove, N. J.,	102 S. 33d St.
Thomas, Walter Dee,	Ogden, Utah,	3265 Chancellor St.
Thompson, Alva Clarke,	Winterport, Me.,	3627 Locust St.
Vandervoort, John Coe,	Paterson, N. J.,	Dorm. 13 Bishop White
Walsh, Charles Aloysius,	Wilkesbarre,	Dorm. 106 Leidy.
Weiler, John Leo,	Sherburne, N. Y.,	126 S. 34th St.
Weinberger, Joseph,	Passaic, N. J.,	3608 Locust St.
Whitcomb, Carroll Byington,	Greenwich, N. Y.,	3412 Sansom St.
Wilson, Charles Ralph,	Huntingdon,	3714 Locust St.
Winstone, Ernest Charles,	Auckland, N. Z.,	17 N. 34th St.
Zeliff, Cyrus V.,	Haledon, N. J.,	4303 Westminster Ave.

FIRST-YEAR CLASS.

Allen, Andrew Bryden,	Dunmore,	3721 Spruce St.
Arey, Harold Carleton,	Camden, Me.,	3412 Sansom St.
A. B. (Colby),		
Arias, Joaquin Maria,	Panama,	249 S. 44th St.
*Bailey, William Richard,	Adelaide, Australia,	3708 Spruce St.
Barager, Christopher Fagan,	Hazleton,	3704 Locust St.
Barberena, Narciso, Jr.,	Granada, Nicaragua,	3927 Baltimore Ave.
	C. A.,	
Barker, Clinton Reed,	Brooklyn, N. Y.,	Dorm. 25 Bodine.
Baskin, Leslie Dean,	Florence, S. C.,	3256 Walnut St.
Baumgardner, Paul Nelson,	Wells Tannery,	3328 Woodland Ave.
Bell, William Forrest,	Auckland, N. Z.,	3332 Lancaster Ave.
Bittenbender, Frank Milnes,	Bloomsburg,	2021 Arch St.
Blakeman, Ralph Sterling,	Mt. Vernon, N. Y.	3407 Walnut St.
Blaschke, Hugo Johannes,	Berlin, Germany,	Dorm. 250 Carruth.
Bleby, Charles Wendell,	Nassau, New Providence, Bahamas,	101 S. 33d St.
Bookstein, Harry Leonel,	Albany, N. Y.,	3704 Locust St.
Borden, Walter Augustus, Jr.,	Philadelphia,	1122 Walnut St.
Brake, Blonda Steele,	Jane Lew, W. Va.,	3741 Spruce St.
Campbell, Kenneth Graham,	Philadelphia,	209 S. 33d St.
Cannon, James Thomas,	Oxford,	3265 Sansom St.
Champagne, Emory Carl,	New Haven, Conn.,	215 McAlpin St.
*Charsky, Harry Aaron,	Philadelphia,	966 N. 5th St.
Dahl, Walter Herbert,	Fargo, N. D.,	3319 Walnut St.
Darrone, Leon Oliver,	Syracuse, N. Y.,	126 S. 34th St.
Davis, John Leigh,	Pulaski, N. Y.,	206 S. 37th St.
Davis, Parke Meade,	Ebensburg,	3445 Walnut St.
Day, John Crane,	Morristown, N. J.,	3338 Walnut St.
Ph. B. (Wesleyan),		
De Camp, Ira Wilson,	Roseland, N. J.,	Dorm. 41 E. F. Smith.
Devine, Paul Farrell,	Newark, N. J.,	Dorm. 11 E. F. Smith.

* Not in attendance.

Name.	Residence.	City Address.
De Witt, Herman Erastus,	Wolfville, N. S., Canada,	3256 Walnut St.
Durler, Victor Henry,	Schenectady, N. Y.,	3341 Woodland Ave.
Duxbury, Paul Coats,	Pine Plains, N. Y.,	3406 Sansom St.
Edwards, George Samuel,	Enid,	3256 Walnut St.
Ellis, Jason Stanley,	Elmira, N. Y.,	Dorm. 380 Lippincott.
Fancher, Walter Earle,	Montrose,	Dorm. 315 Leidy.
Fellows, Armin Thomas,	Philadelphia,	4006 Chestnut St.
Fox, W. Harold,	Cobleskill, N. Y.,	2220 Mt. Vernon St.
Friderich, Julius Max,	Wallingford, Conn.,	209 S. 33d St.
Garcia, Manuel Tomas,	Riobamba, Ecuador, S. A.,	3350 Walnut St.
Gray, Walter Leon,	Bradley Beach, N. J.,	3607 Locust St.
Gillespie, Edward Raymond,	Binghamton, N. Y.,	3339 Woodland Ave.
Goldschmidt, Lawrence Mathew,	Philadelphia,	1414 N. 8th St.
Green, Alexander Ralston,	Salem, N. J.,	124 S. 34th St.
Greenblatt, Robert Abraham,	New York, N. Y.,	South Broad, cor. Dey, Trenton, N. J.
Gregg, Harry Veeder,	Schenectady, N. Y.,	3341 Woodland Ave.
Hammond, Julian Theodore, 3d,	Philadelphia,	5005 Penn St., Fkd.
Harrington, James Boyle,	Ware, Mass.,	3745 Sansom St.
Hartley, Harry,	Philadelphia,	3607 Locust St.
Hausman, Emanuel,	Newark, N. J.,	125 S. 34th St.
Heefner, Mark Lester,	Waynesboro,	3216 Chestnut St.
Hill, William Zino,	Pittsburg,	225 S. 33d St.
Horrigan, William James,	Holyoke, Mass.,	3605 Locust St.
Hurley, Clarence Callan,	Wallingford, Conn.,	3607 Locust St.
Jones, Arthur George,	Wellington, N. Z.,	3406 Sansom St.
Kelley, John Otis,	Syracuse, N. Y.,	217 S. 33d St.
Kelly, Charles Francis,	Philadelphia,	1141 S. 18th St.
Kennedy, Walter Thomas,	Providence, R. I.,	3257 Chancellor St.
Kentgens, Johann Leonardo,	Hoengen, Germany,	3812 Locust St.
Kocher, Lawrence Edward,	West Orange, N. J.,	3816 Spruce St.
Koehler, Robert Henry,	Bridgeport, Conn.,	3407 Walnut St.
Krause, H. Ogle,	Philadelphia,	1704 Green St.
Kremer, Frederic Baney,	Lebanon,	3338 Lancaster Ave.
Lamb, Patrick Henry,	Paterson, N. J.,	3729 Spruce St.
Lane, Dennis Joseph,	Dushore,	3612 Locust St.
Latham, Ernest Richard,	Providence, R. I.,	109 S. 34th St.
Levan, Carl Emil,	Altoona,	3338 Walnut St.
Levy, Ellis,	Philadelphia,	1919 N. Marvine St.
Line, George William,	Carlisle,	1118 Girard St.
McCushing, George Joseph Bernard,	Keene, N. H.,	3465 Sansom St.
McGinnis, Charles Thomas,	Paterson, N. J.,	Dorm. 47 E. F. Smith.
Maby, Edward Raymond,	Cohoes, N. Y.,	3407 Walnut St.
MacGeorge, Hubert,	Camden, N. J.,	[521 Broadway.]
MacWilliams, Hugh,	Philadelphia,	2133 Bainbridge St.
Madden, John Joseph,	Danbury, Conn.,	216 S. 37th St.

Name.	Residence.	City Address.
Mahony, Daniel Joseph, A. B. (Bates),	Rochester, N. H.,	217 S. 33d St.
Master, Edward Andrews,	Flushing, N. Y.,	Dorm. 41 Coxe.
Mata, Jose Alejandro,	Quito, Ecuador, S. A.,	3346 Walnut St.
Mathers, Frank Earle,	Woodbury, N. J.	
Meierhoffer, Charles Joseph,	Orange, N. J.,	209 S. 33d St.
Michael, Reynard Conklin,	Mellenville, N. Y.,	4016 Locust St.
Molinar, Pedro Julian,	Chihuahua, Mexico,	3332 Walnut St.
Murphy, Royle Lawrence,	Ogdensburg, N. Y.,	3743 Locust St.
Murray, Jeremiah Louis,	St. John, N. B., Canada,	109 S. 34th St.
Nash, Roscoe John,	Frenchtown, N. J.,	1918 N. 18th St.
Nesbit, Bruce Squires,	Lewisburg,	2741 N. 29th St.
Neukirch, Andrew's John,	Mülhausen, Ger- many,	3340 Walnut St.
Ortiz, Ruben,	Vera Cruz, Mexico,	3735 Locust St.
Packard, William Thornton,	Clayton, N. Y.,	207 S. 33d St.
Park, Alexander Edgar,	Wayne.	
Pellerano, Manuel de Jesus,	Santo Domingo, W. I.,	3327 Walnut St.
Peters, Raymond Francis,	Egypt,	3244 Sansom St.
Petterson, Harry Eugene,	Worcester, Mass.,	Dorm. 347 McKean.
Pickard, George Clinton,	Victoria, B. C.,	5218 Reinhard St.
*Pierce, Emory Lowe,	Key West, Fla.,	3258 Chestnut St.
Pitt, Edward,	Bexhill, England,	217 S. 33d St.
Proctor, Gerald Fitzgerald,	Port of Spain, Trini- dad, B. W. I.,	217 S. 33d St.
Quinn, Joseph Alexander,	New Brunswick, N. J.,	3431 Walnut St.
Quinn, Joseph Frank,	New Haven, Conn.,	3431 Walnut St.
Raabe, Charles Samuel,	Leadville, Colo.,	3605 Locust St.
Radin, Louis Ralph,	Newark, N. J.,	125 S. 34th St.
Reilly, John Albert,	Hudson,	Dorm. 33 Morgan.
Riethmueller, Richard Henri, Ph. D. (Pennsylvania),	Stuttgart, Germany,	210 S. 36th St.
Rosenthal, Isidor,	Wilkesbarre,	3812 Locust St.
Rufe, Edgar Johnson,	Revere,	111 S. 34th St.
*Russell, Daniel Stephen,	Philadelphia,	3404 Mantua Ave.
Scott, Robert Douglas,	Strathfield, Australia,	3600 Chestnut St.
Scully, Edward Paul,	Meriden, Conn.,	3314 Walnut St.
Shively, John Cornelius,	Caldwell, O.,	3706 Walnut St.
Smith, Miles Catlin,	Towanda,	3402 Sansom St.
Solomons, Joseph R., Jr.,	Brooklyn, N. Y.,	Dorm. 331 Franklin.
Stern, David Samuel,	Paterson, N. J.,	Dorm. 43 Coxe.
Stott, Harry Barton,	Rochester, N. Y.,	3244 Sansom St.
Sullivan, James Michael,	Fall River, Mass.,	3612 Locust St.
Sullivan, John Joseph,	Thompsonville, Conn.,	211 S. 33d St.
Swett, Fred Atwell,	Houlton, Me.,	3338 Lancaster Ave.
Vail, Clinton Theodore,	Middletown, N. Y.,	3422 Sansom St.
Vernon, George Herbert,	Florida, N. Y.,	212 S. 37th St.

* Not in attendance.

Name.	Residence.	City Address.
Walton, Charles Cleveland,	Thames, N. Z.,	3332 Lancaster Ave.
Weaver, Lee A.,	Blossburg,	20 N. 36th St.
Wharfield, Ernest Chester,	Springfield, Mass.,	Dorm. 305 Phillips Brooks.
Whitbeck, Clair Willis Van- Slyke,	Lamson, N. Y.,	3308 Walnut St.

SPECIAL STUDENTS.

Collier, Frederic, D. D. S. (Pennsylvania),	Bordentown, N. J.,	3745 Spruce St.
Edwards, Howard Charles,	Napier, N. Z.,	17 N. 34th St.
Fiedler, Johannes Julius Walter Hermann, Zahnarzt (Germany),	Berlin, Germany,	Bellevue-Stratford Hotel.
Gormley, Thomas Augustus,	Providence, R. I.,	3727 Spruce St.
Gotuzzo, Caetano Netto, Cirurgiao Dentista (Brazil),	Pelotas, Brazil,	3733 Locust St.
Hales, Norman St. Clair, D. D. S. (Pennsylvania),	Wellington, N. Z.,	33 N. 34th St.
Hollenback, William Mar- sall, D. D. S. (Pennsylvania),	Philipsburg,	23 S. 34th St.
Labre, Bento José, Cirurgiao Dentista (Brazil),	Maranhao, Brazil, S. A.,	3810 Powelton Ave.
Moraes, Guilherme de, Cirurgiao Dentista (Brazil),	Rio de Janeiro, Brazil, S. A.,	219 S. 33d St.
Peixoto, Mario, Cirurgiao Dentista (Brazil),	Bahia, Brazil, S. A.,	3215 Race St.
Twitmire, Wilbur Donahue, D. D. S. (Pennsylvania),	Bellefonte,	3338 Walnut St.

SUMMARY.

Students of the Third-year Class.....	131
Students of the Second-year Class.....	123
Students of the First-year Class.....	120
Special Students	11
Total.....	385

GEOGRAPHICAL SUMMARY OF DENTAL STUDENTS.

Argentine Republic.....	4	New Brunswick.....	4
Australia.....	21	New Hampshire.....	4
Austria.....	1	New Jersey.....	44
Brazil.....	8	New York.....	65
British Columbia.....	2	New Zealand.....	14
Chile.....	1	Nicaragua.....	1
Colombia.....	4	North Dakota.....	2
Colorado.....	5	Nova Scotia.....	2
Connecticut.....	23	Ohio.....	3
Costa Rica.....	1	Panama.....	1
Cuba.....	2	Pennsylvania.....	89
Denmark.....	1	Peru.....	2
Ecuador.....	2	Rhode Island.....	4
England.....	4	San Salvador.....	1
Florida.....	2	South Carolina.....	1
France.....	6	Switzerland.....	1
Germany.....	9	Texas.....	1
Guatemala.....	3	Utah.....	3
Holland.....	7	Vermont.....	3
Italy.....	1	Washington.....	2
Maine.....	6	West Indies.....	4
Maryland.....	1	West Virginia.....	2
Massachusetts.....	16		
Mexico.....	2	Total.....	385

DEGREES IN COURSE.

At a public Commencement, held on WEDNESDAY, JUNE 17, 1908, the degree of Doctor of Dental Surgery was conferred on the following:

Wilmer Atkinson Abbott,
George Emery Avery,
Ralph Carmichael Bamford,
Frank Giles Barney,
Arthur Edward Bassett,
Herbert Anthony Becht,
Herbert Weatherhead Bennett,
Johan Cornelius Marie Biersens,
John St. Clair Bowyer,
Jerrold Francis Bransfield,
Thomas Edward Butler,
William James Byrnes,
Juan Batista Carassés y Acosta,
Pascal Elie Cassé,
Charles Chance,
Paul Clipsham, Jr.,
Charles Monford Cole,
Frederic Collier,
Samuel Sugden Cooper,
George Charles Cozens,
Benjamin Wallace Crane,
Earl Mood Creveling,
Ellsworth Theodore Crilley,
Henry Dagger,
Harold Whitney Davis,
John Thomas Delaney,
Clarence Dukes,
Elmer Girvin Echterbach,
Cornelius Bevier Eckert,
Jonas Livermore Edwards,
Sidney Gilbert Elliott,
Albert Marcus Epstein,
Glen Packard Farmer,
Herbert Jermyn Farnsworth,
Matthias Franklin Fennell,
Robert George Fitchie,
William Fitting,
James Anthony Flanagan,
Hugh Francis Fox,
Henry Doane Freeman,
Patrick Joseph Gallagher,
Robert Galloway,
Frank Henry Gardner,

Paul Gates,
Emil Glaser,
Pierrè Godefroy,
William Arthur Garfield Grant,
Percy Harold Lyndsay Guthrie,
James Douglas Carmichael Guy,
Morton Seward Hahn,
Leslie Miller Hay,
Albert Draper Hequembourg,
George Herdocia,
August Ernest Hergenbahn,
William Hughes Hertz,
William Marshall Hollenback,
Arthur Stanley Hughes,
Clarence Leigh Hunt,
Thomas Edward Kirby,
Isaac Stidham Lenderman,
Arthur Leslie Lyell,
Harold Comins McMahon,
Percy Byron McNally,
Horace Edmund Marsh,
Benjamin Merrill,
Clarence K. Milam,
John Russell Morris,
Cecil George Moxham,
Ross Robert Myrose,
Ernest Joseph Neumuller,
Daniel Herr Nissley,
Robert Hodgson Nones, Jr.,
Thomas William Noonan,
Harlan Francis Ong,
Charles Herbert Ovelman,
Oliver Herbert Peifly,
Walker Cleveland Phebus,
Frank Oscar Pope,
William Samuel Prensky,
Adelard Racine,
Leon John Raver,
John Edward Rehrig,
Edmund Louis Renton,
Calvin Willard Richards, Jr.,
Maurice Wheeler Russell,
Charles Blanchard Seely, Jr.,

Thomas Clifton Forsythe Shirley,	William Espy Thompson,
Louis Thomas Singer,	Frederick Charles Tibbs,
Harold Llewellyn Smith,	Guy Stanley Tippery,
James Joseph Spring,	Wilber Donahue Twitmire,
Adolph Burton Stark,	William Robert James Wallace,
Charles Gowdy Stiles,	Bernhard Wolf Weinberger,
Robert Todd Strauss,	Verne Whitney Wight,
Reginald Heber Stow,	Strafford Edmund Wilcox,
Frederick Solomon Yoder.	

In University Council, FRIDAY, DECEMBER 11, 1908.

Doctor of Dental Surgery:

Howard Warren Kendrick	as of the class of	1908.
Frederick Oscar Kraemer, Jr.....	" " " " "	1908.
Charles Henry McCarthy.....	" " " " "	1908.
Douglas Fleet Pyle.....	" " " " "	1908.
William Wallace Westmoreland, Jr.....	" " " " "	1908.

STUDENT DENTAL SOCIETIES.

The JAMES TRUMAN, EDWIN T. DARBY and EDWARD C. KIRK Dental Societies were organized for mutual benefit in the study of Dentistry; as a means of training in the management of dental professional organizations, to foster the spirit of individual investigation and research, and to promote social intercourse and good fellowship among the members. Every member of the Societies in good standing, on graduating from the Department of Dentistry, receives a certificate. Regular meetings are held every two weeks during the session.

SOCIETY OF THE ALUMNI OF THE DEPARTMENT OF DENTISTRY.

President.—Wilson D. DeLong, M. D., D. D. S.

Vice-Presidents.—Frederick W. Allen, D. D. S.; Marquis D. Littig, D. D. S.; William E. Thompson, D. D. S.

Secretary and Treasurer.—George C. Parry, D. D. S., 731 North Forty-first St., Philadelphia, Pa.

Every graduate of the Department of Dentistry in good standing is considered to be a member of this Society, and will be sent bills for dues. Any member who shall pay into the treasury the sum of five dollars, or who shall for five years pay into the treasury the sum of one dollar annually, shall become a life member.

The annual meeting is held on the day previous to Commencement, and is followed in the evening by a collation.

Alumni are requested to send to the Secretary notice of change of residence, or other information likely to be of service to the Society.

DENTAL CALENDAR FOR 1909-10.

1909.

- April 8, Thursday Easter Recess begins: 6 P. M.
April 13, Tuesday Easter Recess ends: 9 A. M.
June 16, Wednesday Commencement, 11 A. M.
Sept. 16, Thursday Competitive Examination for Dental
Scholarships: 9 A. M.
Sept. 18, Saturday Entrance Examinations: 9 A. M.
Sept. 21, Tuesday Re-examination of Conditional Stu-
dents, and Examinations for Admis-
sion to Advanced Standing: 10 A. M.
Sept. 24, Friday Session begins: 8 P. M.
Nov. 24, Wednesday ... Thanksgiving Recess begins: 6 P. M.
Nov. 29, Monday Thanksgiving Recess ends: 9 A. M.
Dec. 23, Thursday Christmas Recess begins: 6 P. M.

1910.

- Jan. 3, Monday Christmas Recess ends: 9 A. M.
Feb. 22, Tuesday University Day. Recess.
Mar. 24, Thursday Easter Recess begins: 6 P. M.
Mar. 29, Tuesday Easter Recess ends: 9 A. M.
June 15, Wednesday ... Commencement, 11 A. M.



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